The Orchadian

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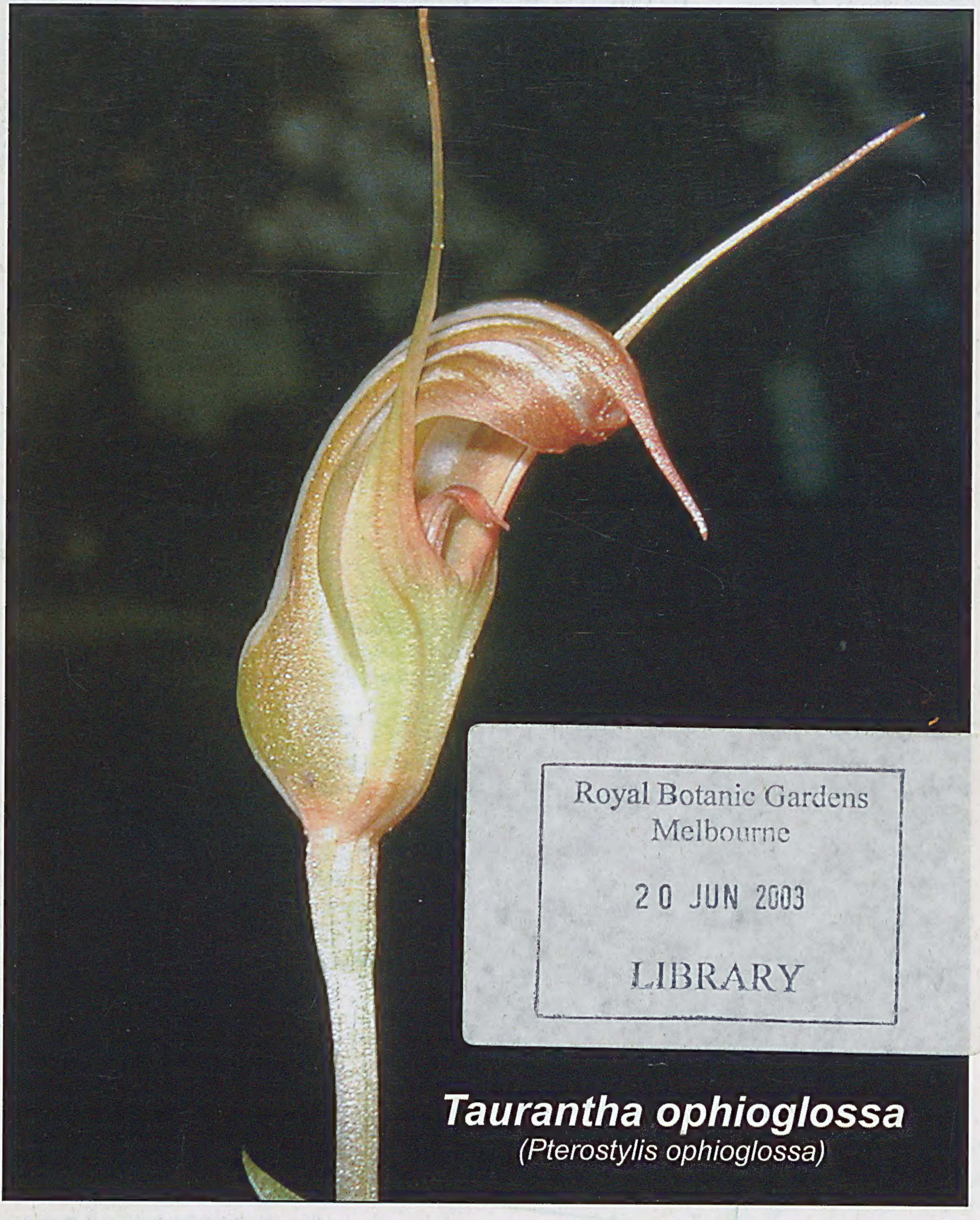
Official Journal of the Australasian Native Orchid Society



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The Orchadian

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Editorial

In this, the June issue, we start with 'What the Schools are Doing', rather than 'What the Groups are Doing'. Graeme Bradburn has become involved with The Illawarra Greenhood Awareness Project, which involves teaching school children about the orchid and they are encouraged to do activities to help with learning about this endangered species.

Phil Spence has an article advising us about a new mite that can affect the flowers of our orchids, something we all need to be aware of, especially when purchasing orchid blooms from the florist!

Michael Harrison has given us an update on the Judging Course which was held last year by the New South Wales Judging Panel. Mike has also written an article on *Bulbophyllum schillerianum*. There is a small article from Len Lawler about the distribution of *Bromheadia pulchra* and *Dendrobium lobbii*. Murray Harding, of Victoria, has the trial results of growing an orchid in horse manure!

There is a story on a weekend trip to the Barrington Tops and a paper from Ron Heberle on *Caladenia filamentosa* in Western Australia with some great photos. You have to laugh at coincidence sometimes, Rons' article was the first I received for this issue and there was only one place it could go, where the text and photos could be together. The Orchadian was put together from there. The last article I received, two weeks before going to print was from D.L. Jones and M.A. Clements regarding nomenclatural changes, once again, to some of the caladenias, *Caladenia filamentosa* and its varieties included.

I have put together a list of the new Pterostylis names. At the recent A.N.O.S. Newcastle Autumn Show I noticed that the 'Best Pterostylis Species' was won by a *Diplodium truncatum*, the winner preferring to use the new name for *Pterostylis truncata*. I guess we will have to change our Sections to either 'Best Pterostylidinae' or 'Best Pterostylis Alliance'.

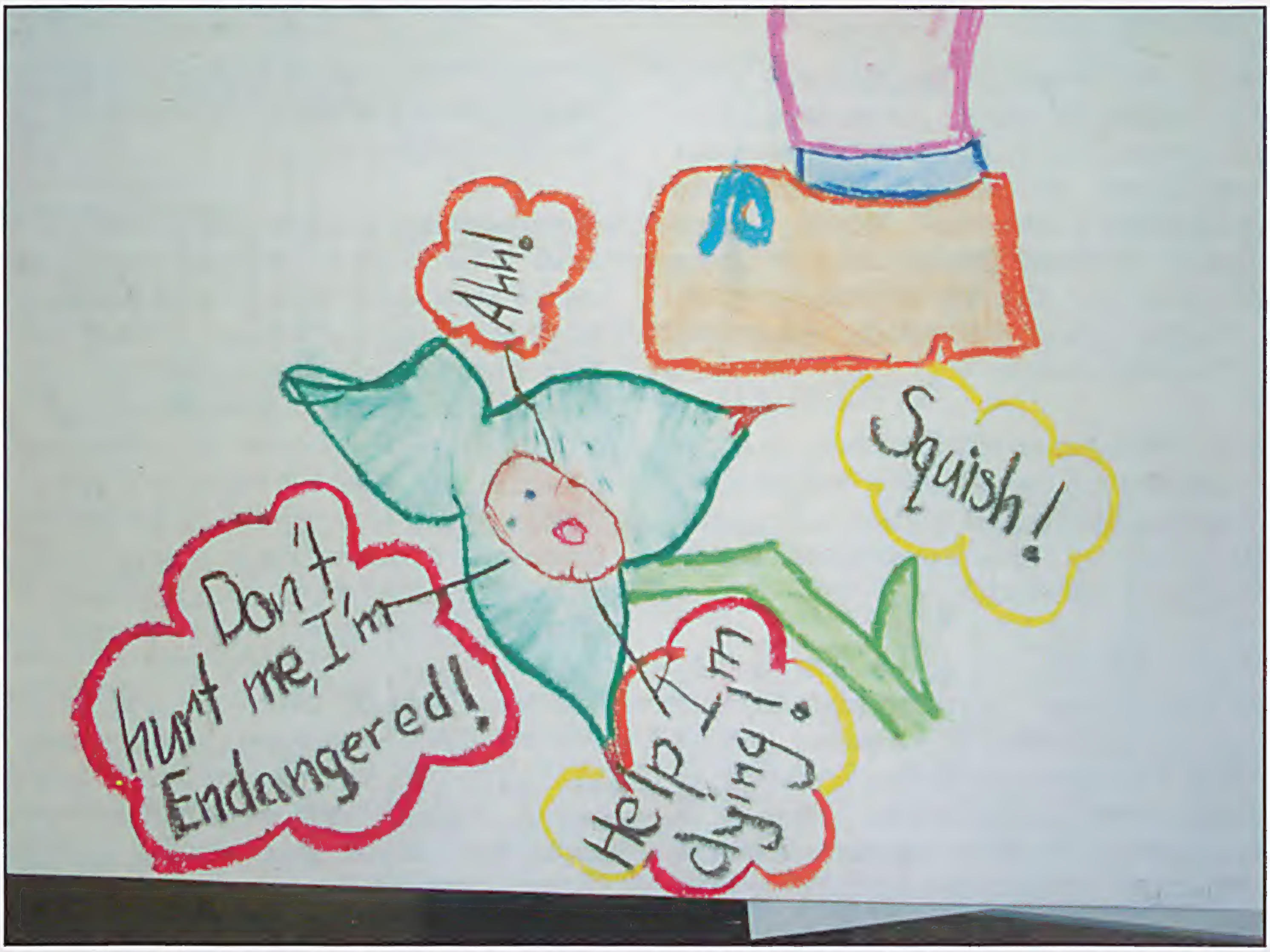
I now have several articles for the September issue and a couple of others promised. One will be from Gerry Walsh which is one of the 'A Bit About .....' articles. Linda Rogan from Victoria, has written a paper on a trip she has done in Western Australia and the orchids she saw. I hope to get some great photos as well. Alan Stevenson will give an update on the *Rhizanthella slateri* and the Bulahdelah by-pass. This is a very colourful article and I don't mean there are plenty of photos.

Finally, I have to say thank you to all the members who have renewed their subscription to The Orchadian. But, the fact still remains that if we do not get more subscribers we will have to look at ways of reducing the cost of producing this journal. We are still down some one hundred members just to break even. Yes, The Orchadian will run at a loss this year!

This years Annual General Meeting will celebrate the 40th year for the Australasian Native Orchid Society and with the 5th ANOS Conference and Show next September, it could be a good opportunity to encourage new members to join and subscribe to The Orchadian. It should be a wonderful year for all the ANOS clubs and their members1

I have enjoyed editing the journal over the past twelve months, there has been plenty of encouragement and help. I have had communication with many other orchid enthusiasts. The support I have had from friends and from all who have supplied articles and photos has been tremendous, although I am often humbled when obvious mistakes are pointed out to me. Let's make this a great year for ANOS and The Orchadian.

Peter, Editor.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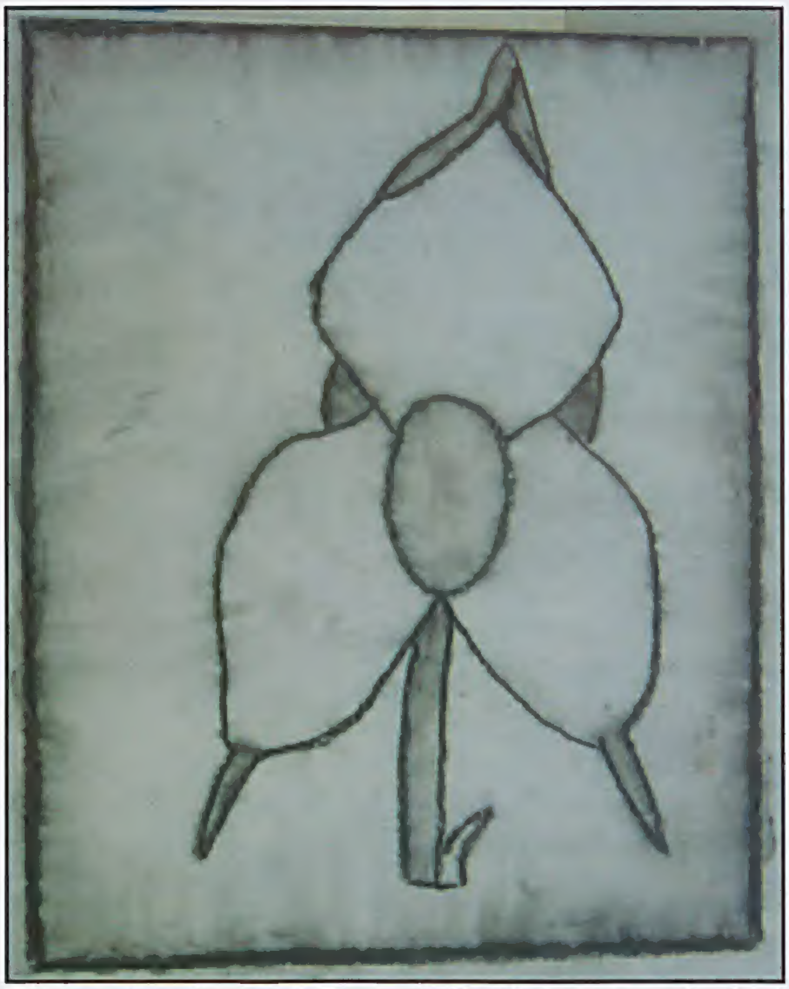

Greenhood Orchid Rap

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You can't be that cruel to let them die
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It isn't cool to kill them
It isn't cool to watch them die
You can't be that cruel to break all its leaves
You can't be that cruel to let them die

By Gessicar and Jenna Doorey and checked by Ms Egan Mount Terry Primary School.

These drawings of *Pterostylis gibbosa* made by the students of Mount Terry Primary School. (Do we teach them the new name *Oligochaetochilus gibbosus*?)

Mount Terry
Primary School
Illawarra
Greenhood Orchid
Awareness Project
Art Display
SAVE
SAVE ME
SAVE

SAVE ME
BY Rebecca S.

The Illawarra Greenhood Orchid Awareness Project

Alison Scobie, Shellharbour Council.

The Illawarra Greenhood Orchid Awareness project was aimed at reducing the threats to the Illawarra Greenhood Orchid within the Croome Regional Sports Complex through education.

Year 6 students at Mount Terry Primary School (Albion Park) participated in the project during Term 4. The program involved:

- Students learning about biodiversity, threatened species, the importance of the Croome Regional Sports Complex for habitat of the Illawarra Lowland Native Grassy Woodland endangered ecological community, and the Illawarra Greenhood Orchid and threats to the species.
- Students undertaking a biological diversity survey within the school grounds (plant and bird species surveys).
- Students creating artwork that was judged in a competition to select pictures to be used for:
  a. screen printing on to calico bags
  b. interpretive signage to be placed within the Croome Regional Sports Complex.

The students have a great time and learn a lot about biodiversity and the Illawarra Greenhood Orchid through this program.

The program was funded through the Southern Catchment Board, Department of Land and Water Conservation and Shellharbour City Council, with significant support and enthusiasm from the teachers and students of Mount Terry Primary School.

In addition Peter – This is going to take place again this year. They have arranged for me to assist on the day.

Their annual world environment day activities (5th June is World Environment Day) will be hosted at Croome – Sports Stadium.

Each year, six schools send one class (30 students) from either year 7 or year 6.

They hold a day of environmental activities and the schools rotate to participate in three of the six activities. The activities would include those listed above.

Graeme Bradburn

-oOo-

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Premature Collapse of *Dendrobium* Flowers and Possibly other Flowers

A New Mite Problem Detected on Imported Flowers.

Phil Spence
P.O. Box 3525
Wamberal, NSW, 2260

Around early June 2002 several inflorescences of imported orchid flowers were purchased from a florist on the central coast of New South Wales. As best that I can find out the particular flowers were hybrids similar to *Dendrobium* Madam Pompadour. I, at a later date, returned to the florist, where these flowers were purchased, to find out the origin of these flowers and was assured that these flowers were imported.

These six inflorescences of flowers were placed in a vase on the stainless-steel workbench in my tissue culture laboratory for further study and maybe to use the pollinia. About 25% of the flowers were open on all six inflorescences. Within two days the first flowers had collapsed as if the pollen cap had been disturbed or removed from the column.

Upon closer inspection the pollen cap was in place and did not seem to have been disturbed, so I carefully removed the cap to find that the pollen was black and appeared to be covered with a white mould. By chance I decided to have a closer look and placed the pollen under the laboratory binocular microscope; to my surprise I could see that all the surface pollen grains had been striped from the pollinia, causing the remaining pollen to turn black. There was what looked like ground up pollen loosely sprinkled around the surroundings of the pollen enclosure.

The biggest surprise was to see so many minute mites, compared with the Two Spotted Mite (*Tetranychus urticae*) crawling over all the remains of the pollen. Some were carrying large pieces of ground up pollen as compared with the size of this minute mite. It would be impossible to see these mites with the naked eye, as about four to six of these mites total size would make the size of a mature Two Spotted Mite.

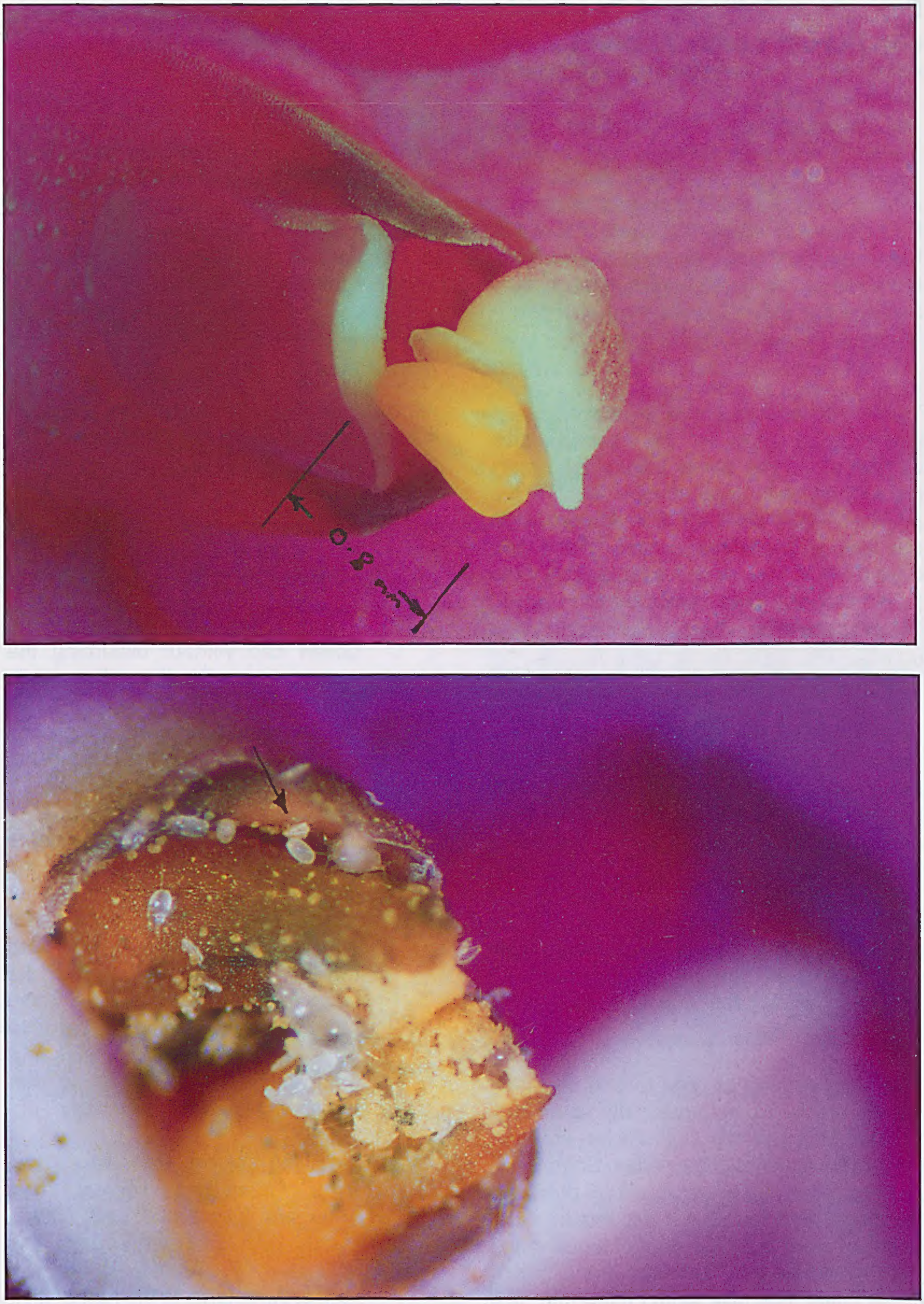
As soon as the lighting for the platen of the microscope shone on these mites they quickly scurried out of sight, away from the light, hiding behind the black remains of the pollen debris.

Further inspection revealed the following:

a. These mites can get under the pollen cap without disturbing the cap or contaminating the sterile area where the pollen is found. It is not until they start taking the ground up pollen out from under the cap that this sterile area is contaminated.

b. They strip the pollen into minute pieces almost paste-like. In the darkness they remove some of this ground up pollen from under the cap and deposit it around the join between the cap and the column. Again without disturbing the cap these yellow pieces can be seen with good sharp eyes or a magnifying glass. A day or so later the cap turns brown then black.

c. On lifting the cap there was about thirty plus mites in varying sizes. They are fully translucent (like a plastic bag filled with water) and only the odd mature mite has two faint brown marks to the rear of their body.



Healthy pollinia at top and the pollinia affected by the mites below.

Photos courtesy of Phil Spence

d. The eggs are large, about half the size of the mature mite and are also fully translucent. The mites carry these eggs around in similar fashion as ants do with their eggs.

e. As soon as a flower starts to split open, the pollen is clean and has no apparent invasion. Within twenty four hours I assume in the dark of night, the mature mites travel up the rachis and start infesting the next flower.

This infestation once detected was sealed in an airtight container and then taken to Narara Agricultural Station, North Gosford, where Mr. David Harris verified my findings and was kind enough to photograph these mites and then compiled a CD for their records.

The remaining flowers were destroyed with steam sterilization except for the flowers and specimens that were preserved in sprit. The research station had no record of such a mite within Australia.

The only information I have been able to locate has been with the help of Mr. Alan Merriman a well-noted specialist in the orchid and horticultural field.

The information is as follows:
Extract C-A-D. Mite = *Tyrophagus* (*Acaridae*)

In 1983 orchids of the genes *Cymbidium* cultivated in the green houses in Italy, suffered flowering damage that was traced to *Tyophagus longior,* a polyphagous mite that was known to attack stored products. It had seldom been reported on living plants and never before on commercially grown flowers. The biology, morphology and food are reviewed with the emphasis on the need of a relative humidity and low light intensity for development.

Since it was recorded from heaps of drying or decaying matter (organic) such as; fodder crops, hay and organic manures, it was thought to have been introduced into orchid green houses with the fertilizers which together with peat moss, wood fibres and bark, formed the substrate on which the orchids were grown, at temperatures of 12-25° C and relative humidity of 70-90%.

The most heavily affected cultivar was *Cymbidium* Claubada, into which the mite introduced fungal spores that prevented the flowers from opening. Damage was slight or negligible on other cultivars of Cymbidiums. The only control measures possible are preventive applications of fungicides, sterilization of the potting compost and cultivation of cultivars of Cymbidium that are resistant to *Tyrophagus longior.* A second species has been known to cause problems but no further information is at hand except for its name *Tyrophagus heiswawderi* and that it was identified in New Zealand.

Just keep in mind that this information might not be these mites in the pictures, so for any reason you suspect you have a problem report it to your local Agricultural, Horticultural or Plant Quarantine Station, as the spread of new problems must be stopped. Also the flowers that were infested were Dendrobium and not Cymbidium as stated in the cited information, it is also possible the treatment of this mite requires a miticide and not a fungicide.

A special thanks to Mr. A. Merriman who has also supplied the following additional information

A new mite found on Orchid Blooms.

June 2002, Mr Phil Spence contacted me regarding an unusual insect found eating pollen on some recently purchased Dendrobium blooms. He had found that the local horticulture research station at Narara (near Gosford on the N.S.W. central coast) had not seen this insect before. Phil sent the pictures that the department had taken of this insect to me to see if I knew anything about this newly found pest. The answer was no. So I immediately contacted my friend in the agriculture department and eventually contacted Adnata Knihinicki who was a mite expert. Luck was with us. She knew exactly what this critter was.

Tyrophagus. S/P (*Acaridae*) has been found in Australia on various crops, but not common. It has been a pest on orchids in Italy and New Zealand. I believe the only control that these two countries practice is sterile hygiene. Well, what do we do? It seems preventive measures will be the easiest if found in collections. Curative will be very hard as most agro-chemicals may mark the blooms making them unsuitable for shows and sale to florists. To do this one must be careful on what plants they bring in from overseas and that also means blooms purchased from local florists, they may have imported their blooms from overseas.

Chemical control that will kill the mite and not cause phototoxicity are a few and far between. Some of the agametic compounds have been used without problems. Chloronicl is systemic and it may be of some help in controlling this mite. Bifenthrin is a contact spray that has little phototoxicity problems. Make sure you use the S.C. formulation not the E.C. formulation. Maybe the use of *Phytoseiulus persimilis* in an integrated pest control program could be the answer. Final word – be vigilant, if you suspect you have this mite in your collection, contact your agriculture department immediately.

Note;

Alan Merriman has been growing orchids for over forty years. During that time he worked for over twenty years at Cecil Park Orchid's, once one of Australian premier Cymbidium nurseries. Over the years he has specialised in pest and disease control in many crops. Alan now works as a technical sales consultant in pests, diseases and nutrients for an agriculture wholesale distributor. Alan and his wife operate Miriam Ann Orchids at Glenbrook in the Blue Mountains not far from Sydney. He is also the author of Alan's Pest and Disease handbook and Alan's Fertiliser handbook.

Recording station:
Narara Agricultural Station North Gosford
(Mr. D. Harris)
NSW Agriculture Locked Bag 26
Gosford 2250 NSW.

References cited;

Merriman A.J. - Alan's Pest and Disease Handbook.
Knihinicki D. - N.S.W. Agriculture – personal communications. Workman P.
Proceedings of the 41st New Zealand Weed and Pest Control Conference.
Ciampolini M. - A Mite Injurious to Orchids in the Greenhouse.
Kulchawee Kamjaipai Kasem Boonchoo Diseases and Pests of Orchids
Abstract C-A-D. Mite = *Tyrophagus s/p* (*Acaridae*)

-oOo-

Annual General Meeting of ANOS Inc.
Gosford RSL Club on the 2nd August 2003

The Annual General Meeting of the Australasian Native Orchid Society Incorporated will be held at the Gosford RSL Club on Saturday 2nd August, commencing at 10.00am.
Any Group or individual member who has matters to be included on the agenda, along with any nominations for positions on Council, should have these with the Secretary no latter than one week prior to the AGM. Send these items to: The Secretary, ANOS Inc.
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Report on the 2002 ANOS NSW Judging Course.

During 2002 the ANOS New South Wales, Judging Panel conducted a judging school to boost the number of ANOS Judges in NSW. We decided to conduct the course in Gosford, as the majority of applicants were from the Central Coast and Newcastle ANOS Groups.

Commencing in February 2002, we began with fifteen candidates, but that number had dropped to twelve by the following month, and by the time of the exams in October, we had nine students. This may sound like an excessive attrition rate, but based on previous experience it was quite good. People drop out for many different reasons, some related to the course content and others for personal or family reasons, and over the years we have had situations where over half the starters have failed to reach the final exam stage.

The ANOS Judging School met on the final Sunday of each month at Gosford RSL Club, with lessons commencing at 10.00am and generally going through to 1.00 or 1.30pm. We covered a multitude of topics, with particular attention to Australian temperate and tropical epiphytic species, NSW terrestrials orchids, *Dendrobium* and *Sarcanthinae* hybrids, botany, biology and nomenclature of native orchids, native orchid literature, the philosophy and protocols of judging, and, of course, the ANOS Judging Standards. At each lesson we also did exercises in practical judging and pointing up, as well as a twenty minute exam on a topic covered in the previous month's lesson.

The students who sat for the final exams were: Roslyn Capell, Bill Dobson, Mike Fish, Elvire Hochguertel, Matt Hochguertel, Bill Olsen, Richard Pettigrew, John Phillips and Peter Presland.

It is most pleasing to report that all of these students have passed the examination and have been invited to continue with the course. Each student is currently working on a research project, which upon completion will be presented to the ANOS NSW Judging Panel for assessment. This presentation will be the final stage in the course, and successful students will be inducted as ANOS Certificated Judges. Further elevation to ANOS Associate Judge and finally to ANOS Judge will be, as always, based solely upon merit.

Michael Harrison
ANOS NSW Registrar of Judges.

A Note on Distribution

Len Lawler
P.O. Box 659
Tolga 4882

In September 2001, I was pleased to be able to join a group of S.G.A.P. (Society for Growing Australian Plants), enthusiasts who were visiting Hopevale Aboriginal Community, some 30 km north of Cooktown. As we proceeded toward Cape Bedford the track skirted the edge of a swamp which I insisted we investigate on the return journey. No sooner had we deployed from the vehicles than Chris Evans discovered a plant of *Bromheadia pulchra*. A careful search disclosed a fair sized colony of typical plants. This find represents a considerable southward extension of the range of this orchid. David Liddle (personal communication, 2001) informs me that he has seen this orchid in several localities in the Hopevale Cape Flattery areas.

Lewis Roberts (personal communication, 2003) advises that he has observed patches of *Dendrobium lobbii* in higher parts of the same area. This observation is important as it significantly reduces the distance between the two hitherto known, widely seperated, occurrences in northern Queensland.

Australian Orchid Research. Volume 4 is now available.
Authors David L. Jones and Dr Mark A. Clements

This is part of the ongoing occasional series of publications by the Australian Orchid Foundation. This Volume contains a monographic treatment of *Pterostylis*. There are four parts:

a. A reassessment of *Pterostylis*.
b. A new classification of *Pterostylis*.
c. A synopsis of the Sub-tribe *Pterostylidinae*.
d. An index with cross referencing of all taxa within the group.

This monographic treatment is a result of 25 years of research by the authors.
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AUSTRALIAN ORCHID RESEARCH

is an occasional publication dealing with the results of scientific research into Australian Orchidaceae. It is published periodically when suitable material comes to hand. All publications are reviewed by at least two botanical specialists and edited prior to publication.

Three volumes have been published to date:-

Volume 1, 1989.,
***Catalogue of Australian Orchidaceae*, M.A. Clements.**

Volume 2, 1991.,
***New Taxa of Australian Orchidaceae*, David L. Jones.**

Volume 3, 1998.,
***Contributions to Tasmanian Orchidology*, David L. Jones.**

Copies of
AUSTRALIAN ORCHID RESEARCH
and other publications are available from:

The Australian Orchid Foundation,
107 Roberts Street, Essendon 3040
Victoria, Australia

Barrington Tops Weekend Trip

Peter Eygelshoven
13 Weeroona Ave
Elanora Heights 2101
peygelshoven@optusnet.com.au

Newcastle members sent out an invitation to the Groups to join them, on the 2nd February, for a day trip to the Barrington Tops. Members from Warringah Group were interested and decided to go up on Saturday and camp the night at Polblue Swamp, at the top of the Barrington Range. Initially there were quite a few going but when the time came there were only four members who went, Roslyn Capell, Irene Bodell, Bill Dobson and myself. The plan was to meet at Turramurra station at 11.00 am and head off. I went with Bill in his work car and Irene went with Ros in her new four wheel drive.

Barrington Tops and the sphagnum swamp of Polblue in particular, has been a hot spot for orchid enthusiasts since the early to mid 1900's. I have recently read a paper, Terrestrial Orchids of Barrington Tops by the Rev. H. M. R. Rupp, B.A., (read 29th August, 1928), which describes a trip he had done to the area earlier that year on January 18th.

Rupp had described the orchid *Diuris venosa*, (These Proc., li, Part 3, 1928), two years earlier and wished to see the orchid in its natural habitat. On this journey he found two new species, *Prasophyllum rogersii* and *Prasophyllum hopsonii*, which were described in the same paper. Rupp also mentions other orchids he saw and comments on the weather; "We were compelled to make the accent from the Allyn River with as little delay as possible, for bad weather was threatening, and I was therefore unable to make a careful search of the mountain slopes until we came down." This will be my third trip to this area and each time the weather was either threatening or bad. I'm sure he would have appreciated the comfort and ease of a car on that trip, but in those days men were men!

The diversity of plant communities in this National Park, allows for a wide range of orchids, there are subtropical and cool temperate rainforests, eucalypt or sclerophyll forests and the subalpine grasslands and sphagnum swamps of the plateau which are more than 1500 m above sea level. The whole area covers some 74,000 hectares and is listed as part of the World Heritage Area. The Barrington Tops Plateau peaks at around 1586 m and is the highest tableland plateau in the country other than the Australian Alps and is one of the last pieces of a once vast lava sheet, others being the Dorrigo Plateau, New England and the Border Ranges. This area is home to more than fifty rare or threatened plant and animal species.

Anyway, the weather seemed OK for camping and Irene had contacted a ranger who said to bring our own water and that there was a fire ban within the National Park. We set off and two hours later had a stop for lunch at the golden archers at Heatherbrae. Then a short stop at Gloucester to pick up some last minute supplies, maps, etc. Then off we headed to try and find the first orchid stop that Len Field, from Newcastle Group, had given Irene, via email. It read something like this 'some miles past Gloucester there is a newish concrete bridge with Sheoak trees on the left and a grassy area', how far is some miles to a country boy?

Driving through the Copeland Tops State Forest, Bill and I saw some large plants of *Cymbidium suave* growing high in the Eucalyptus trees (we had to point these out to Ros and Irene on the way back). The bridge, which we eventually came across, was more like 30 km from Gloucester, but we found it. It crossed a beautiful river with huge Casuarina trees along the banks and there was plenty of *Dockrillia cucumerina* growing on the branches. We agreed that this would make a wonderful camping spot, but as we arranged to go to Polblue, we headed off again. As usual, and because Bill was driving, I kept a lookout for orchids and soon saw some more *D. cucumerina*, at eye level, so we stopped to looked at them. Some were in flower and we also came across a few seed pods, which were as large as the thick gherkin shaped leaves. A seedling of *Thelychiton tarberi*, (*Dendrobium speciosum* var. *hillii* or *D. tarberi*) was also growing there, as was a few large clumps of *Dockrillia linguiformis*.

The next stop that Len Field said was worth a look at was, ‘a giant tree just past a cow grid, (and there were plenty of cow grids), on the left of the road and is covered in orchids and ferns’. Well as you drive along it isn’t hard to miss this tree, it’s big, literally covered in orchids, ferns, mosses, lichens, and it is growing just off the edge of the road. As it was too wet to scramble through the bush to have a closer look, we only saw from the roadside *Thelychiton tarberi*, *T. gracilicaulis* (*Dendrobium gracilicaule*) and some huge bird nest, stag and elkhorn ferns, but Len Field said that there were a lot more species of orchids, growing on the tree.

As time was getting on, we headed up the mountain and soon came into a thick fog and drizzly rain. It slowed us down, which was good as we then saw plenty of wild life on the side of the road, mountain parrots, kangaroos, swamp wallabies and a wombat. When we arrived at Polblue it was very windy, foggy, rainy and cold. So we decided to head back down the mountain to the river were we first stopped, 60 km back down the dirt road. We pretty much came out of the fog where we came into it originally, and then down by the river, where the weather was pleasant again, it seemed a more suitable place to spend the night.

We pitched our tents and set up camp. We had just finished our dinner when it started to rain, very lightly. It wasn’t enough for us to pack up and reside in the tents or cars but, enough to notice it and wonder if the heavens would open on us. After all, the area here doesn’t look like it was in a drought, the grass was green, many of the dams on the farms were full, the river we camped by was flowing and the cattle we passed were fat.

We sat by the river with the lantern glowing behind us as the dark set in, we could not see the stars but could hear the cows on the other side of the river, quite different to the noises of Sydney by night. As we opened our second bottle of red wine, other splashing noises could be heard from the river, we had already seen a long, fat slimy eel swim pass. Ros went to get her torch; she needed to know what the noises were. Bill’s reply was, ‘no you don’t.’ Thinking that, sometimes it’s better if you didn’t know what the noises are. This was a new experience for Ros, her first camping trip.

It turned out, as Bill informed us, to be bass, (a fish) catching insects, which fly across the water in the evening shadows. Then there was a rustle in the grass and a noise in the trees, click went the torch again, only to spot a large brush tailed possum climbing between the trees looking for something to eat. Some swooshie noises could be heard above our heads, probably birds or bats, but too dark to see. The evening was spent swapping yarns and sipping red wine by the river, this was truly the great outdoors!

Early the next morning the weather seemed clear, but most of our belongings were packed up wet. We had breakfast, a cup of coffee or two and then started on our way back up to the top. We soon hit the fog again and the rain was slightly heavier than the day before, (yes it had started as we approached the rainforests). We stopped at a small picnic area on the way up; it was in a rainforest area, we saw some large plants of *Thelychiton tarberi*, *Sarcochilus falcatus* and *Plectorrhiza tridentata*. They were growing in the trees along side the road where we also found a dead plant of

Dockrillia schoeninum. The rain was fairly heavy now but we kept looking for something new, a different orchid. Newcastle Group would not arrive at Polblue till around 11.00 am so we had time to look for orchids. We went back to the cars and continued up the mountain. Bill and I lead the way through the heavy fog. The visibility would be at times less than six or seven metres in front of us. In lighter patches we saw lyre birds running across the road, but the wombat we saw the day before was not to be seen.

We stopped at the sign that read, Mount Royal Range 1510 m elevation, to take a photo of the fog and cars and to have a little break. We found some *Diplodium coccinum*, (*Pterostylis coccina*) and *Diplodium abruptum*, (*P. abrupta*) in flower. The mosses and lichens growing on the rocks were so healthy that you would think it rained here every day. When we arrived at Polblue it was still cold, wet and windy. Luckily, the shelter in the camping grounds still had the fire glowing from the visitors camping there overnight. We collected some fire wood and managed to get it burning again. We had tea and coffee to warm up anticipating the others would arrive in an hour or so.

The rangers arrived to swap the full garbage bins with clean empty ones. In conversation with one of them, we requested if he could get rid of the fog and wind so we could enjoy our walk around the swamp. He said he would arrange for it to lift in about twenty minutes or so. It did! Either he knew it would or it was a lucky guess.

We wandered around the area to find flowers of *Eriochlius cucullata*, *Hymenochilus cycnocephalus*, (*Pterostylis cycnocephala*), *Diplodium abruptum*, *D. coccinum*, *Corunastylis nudiscapa*, (*Genoplesium nudiscapum*) and some *Chiloglottis* leaves.

Soon we heard some cars arriving and went back to the shelter to meet the Newcastle Group who were well into making tea and coffee. We discussed the orchids that we had found around the camp site area and what happened last night and were we camped. Alan Dash and Len Field then took us around the swamp to show us the orchids of Polblue. We saw more of the orchids we found earlier that morning but, as we crossed the creeks we found *Pterostylis furcata* growing in sphagnum moss. We also came across one poor flowering plant of *Microtis* (*parviflora* complex), only two flowering plants of *Diuris venosa* were seen, possibly due to the dry or lateness of our visit.

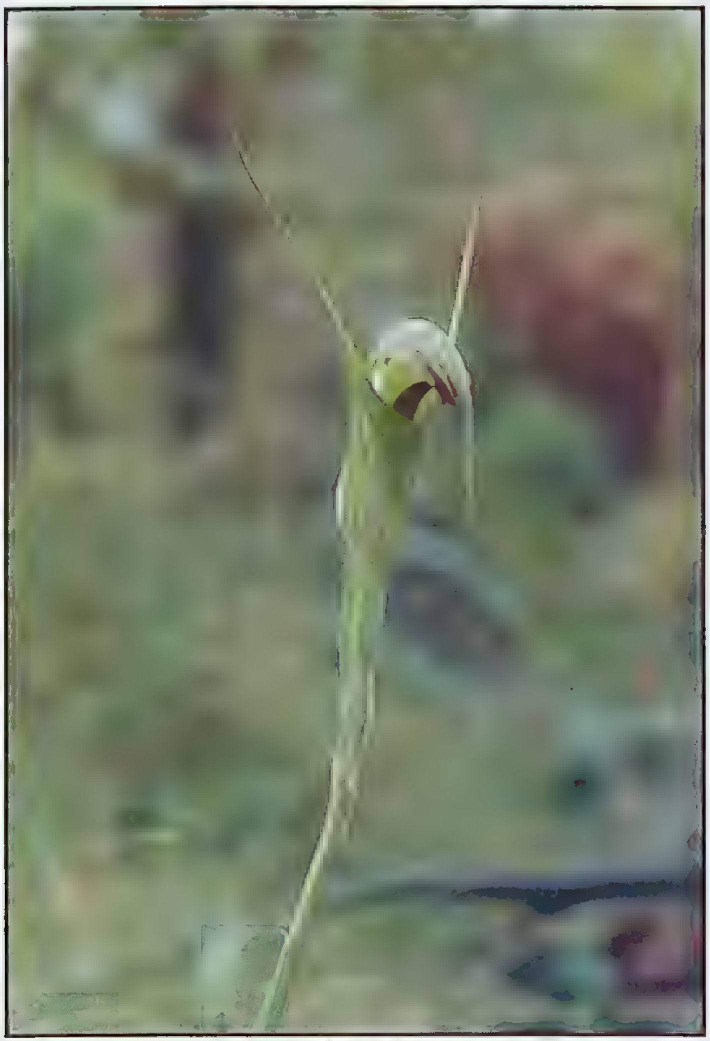
Soon we were back at the shelter and the Newcastle members put on a buffet of salads and cold meats which we all enjoyed greatly by the fire. After lunch Alan and Len took us to a place called The Rock, a curious arrangement of rocks to say the least.

Here we saw *Diplodium coccinum* and two forms of *D. abruptum*, there was some discussion with Alan Dash over this orchid, as I identified one as *Pterostylis decurva*, (*Diplodium decurvum*) and Alan corrected me in identifing it as a variation of *Pterostylis abrupta*, (*Diplodium abruptum*). Alan read from Tony Bishops' book and explained to us the differences between the two clones which are the same species.(see photo page 161 in this issue and back page Volume 14, number 3). One flower of *Chiloglottis trilabra* and one flower of another *Chiloglottis* species, a *Corunastylis* (*Genoplesium*) species in pod, and some *Spiranthes australis* where also in flower.

From here we said our thanks and farewells and headed back to Sydney with another quick stop at the golden arches on the way home. We all agreed that the weekend was great and have spoken about going back in October to see the *Thelychiton falcorostrus* (*Dendrobium falcorostrum*), *Sarcochilus falcatus*, and other spring orchids in flower.

-oOo-

Campers set up for the evening.



The *Diplodium abruptum* (*Pterostylis abrupta*) as compared back page Volume 14, number 3.

The rather curious rock formation just known as 'The Rock'.

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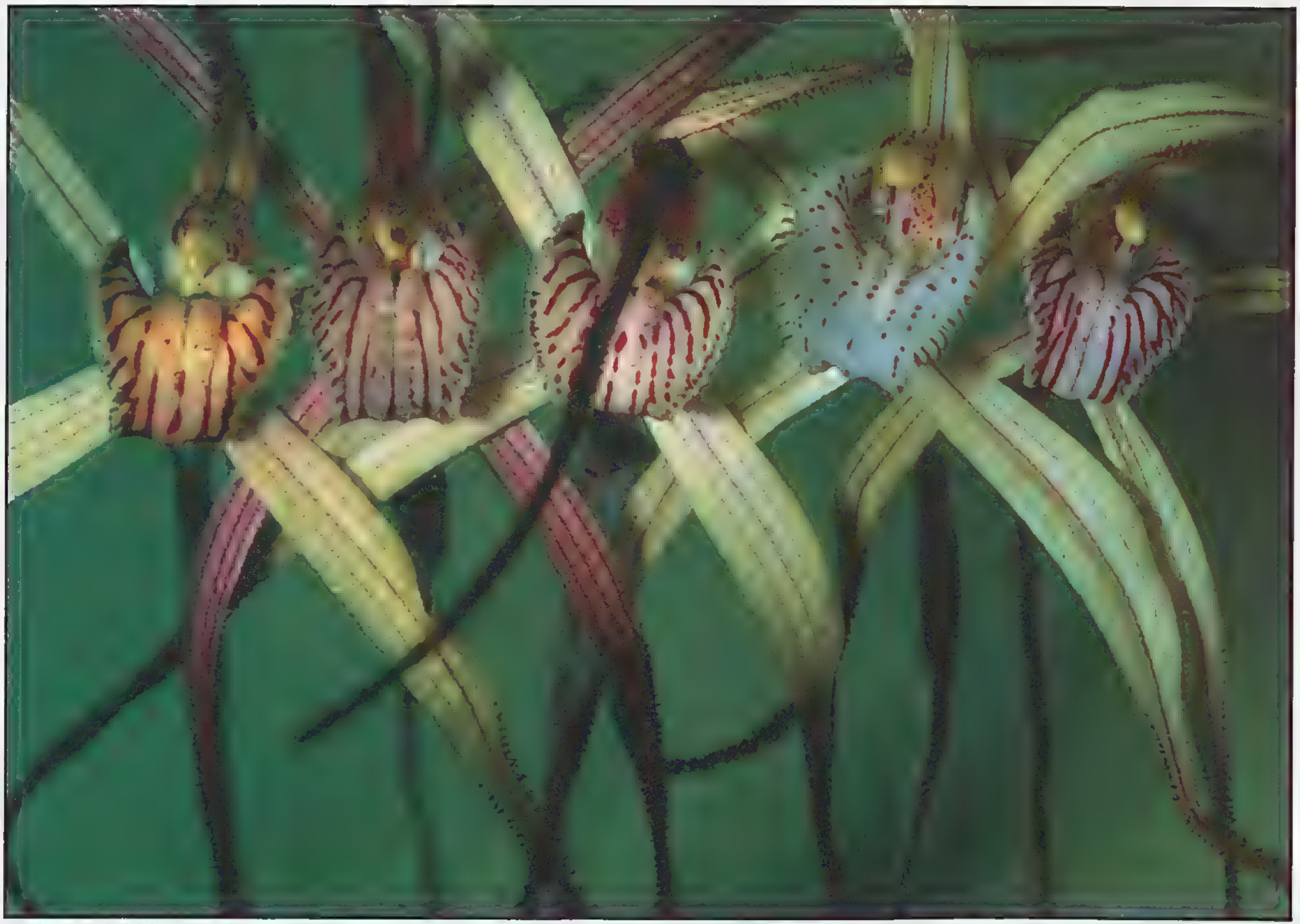

Plate 1 West of Cranbrook

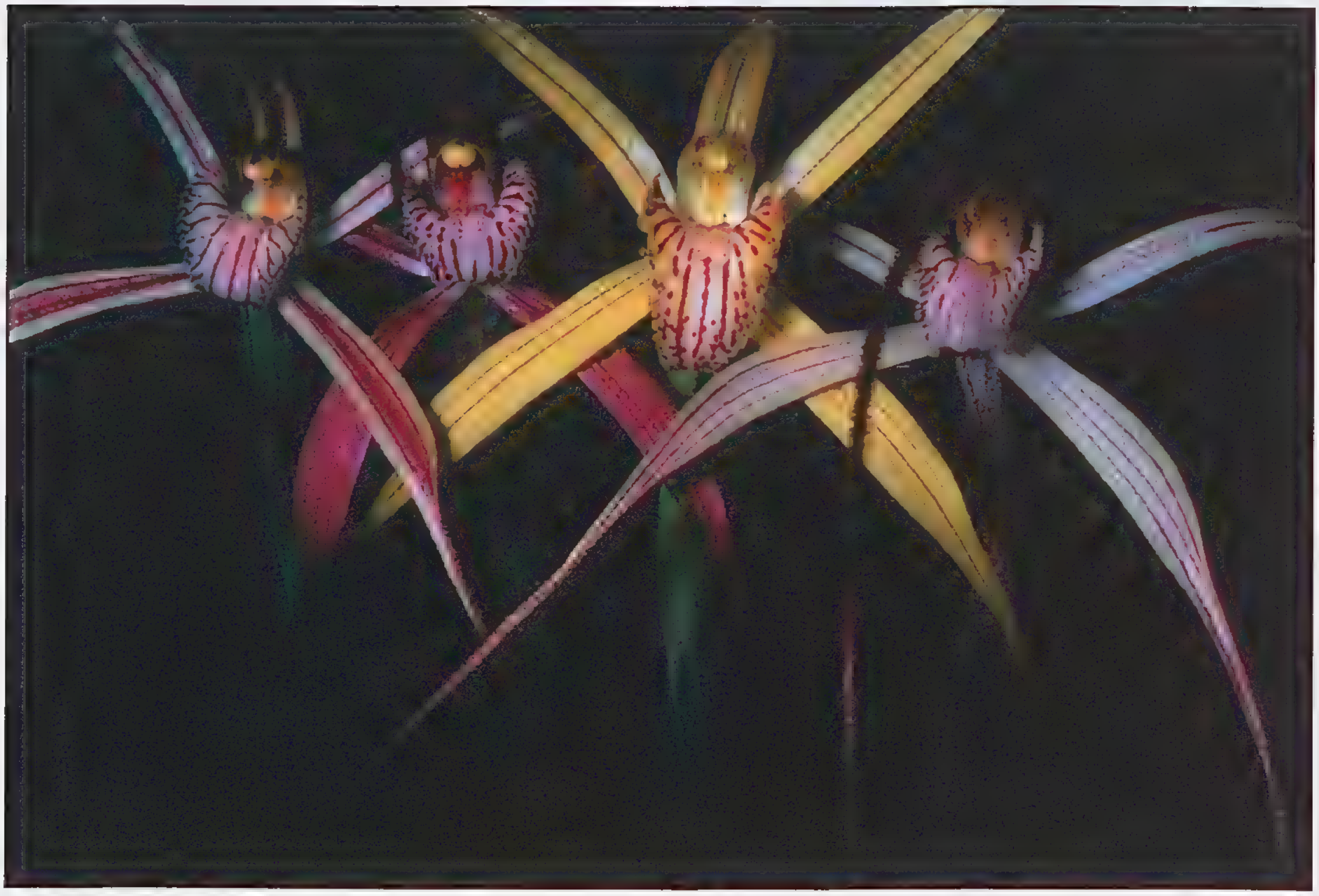

Plate 2 East of Cranbrook

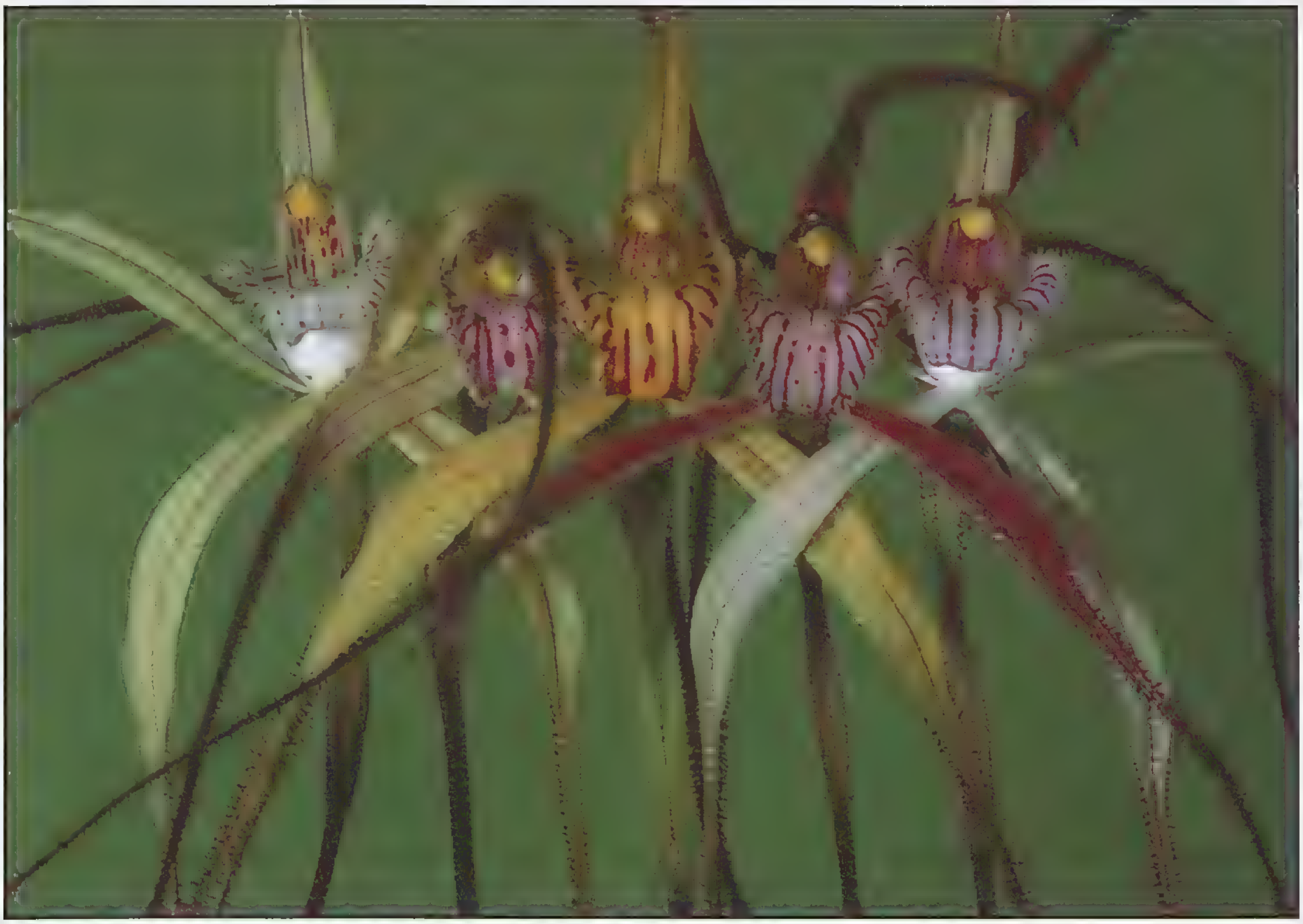

Plate 3 West of Cranbrook on the Boyup Brook Road

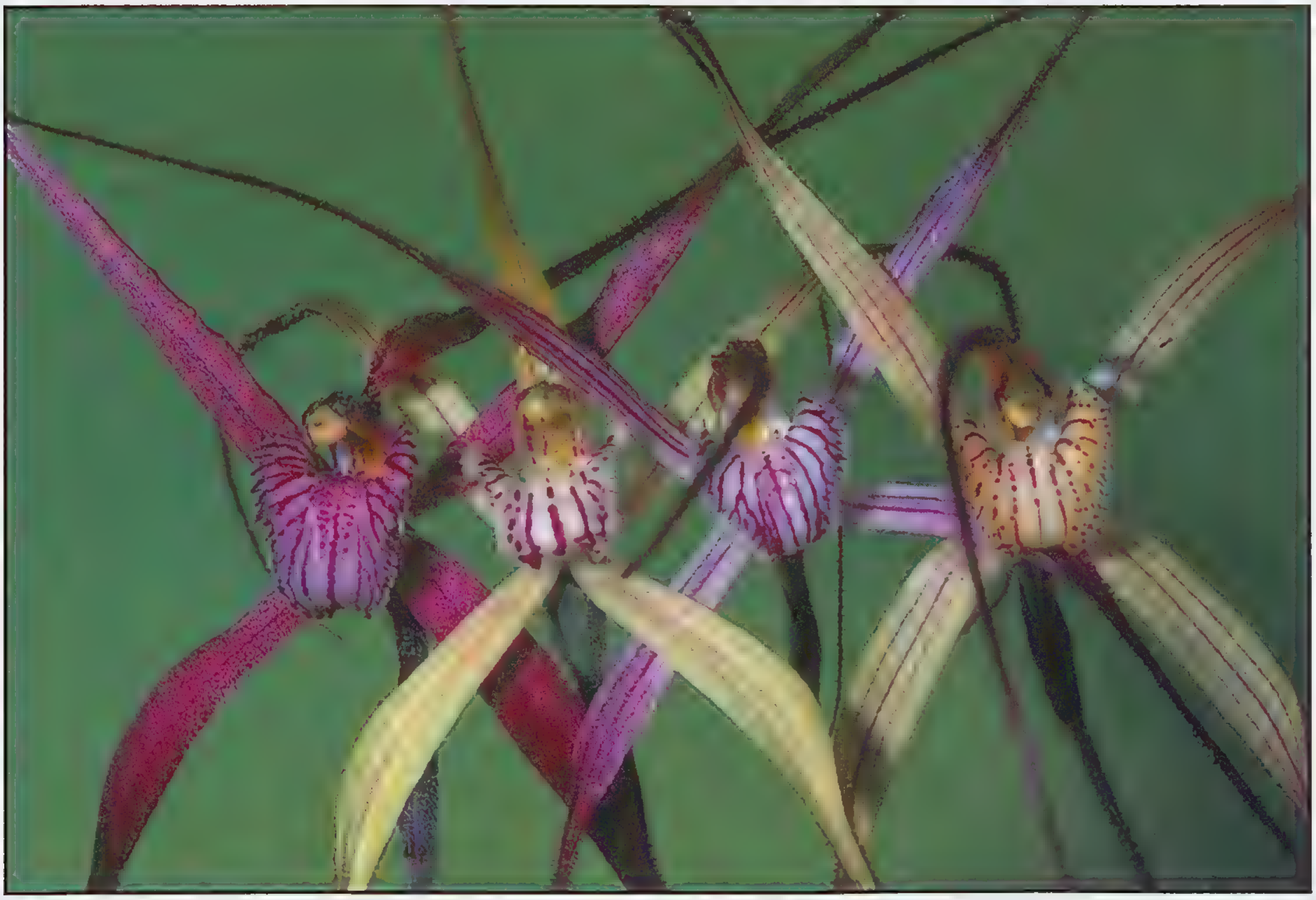

Plate 4 Cranbrook townsite

Photos R.L. Heberle

Caladenia filamentosa.

Caladenia filamentosa? in the south west of Western Australia.

R.L. Heberle
Albany
Western Australia

The species was recorded from Port Dalrymple, Tasmania and named by Robert Brown in PRODROMUS (1810). It was considered to be present in all states of Australia except the Northern Territory. In Western Australia the species had received varietal names of *Caladenia filamentosa* var. *caesarea – denticulata – dorrienii – filifera – tentaculata*, George A. (1991). These names were accepted by professionals and amateurs alike and were in common use by all. There was general acceptance of the species complex as being the most common, abundant and variable of all the Western Australian caladenias, having adapted to flourish over the ever changing climate, habitat and environmental influences, presenting a bewildering and seemingly infinite variety of form and colour, over this tremendous range from north of the Murchison River, south to Augusta and east to Israelite Bay (at least). This covers most of the South West Botanical Province (approximately thirteen million hectares).

Over this range the complex has a common structure of segments terminating in long filaments (hence the name filamentosa), incurved dorsal sepals, a more or less oval labellum boldly striped and a dentate margin, with two rows of fleshy flattened calli, angled downwards and terminating before the bend, the column is shortly winged with glands absent at the base. The species reflects most colours (with the exception of blue) that can be striped or veined by contrasting colours.

The photographs supporting these descriptions have been selected from just one small area (similar variations can be found throughout the growing areas elsewhere) based around Cranbrook and growing within a 20 km radius of it. They graphically illustrate the amazing variation. Where have they gone?

They certainly have disappeared from current literature and publications ... and I miss them!

The species have been generally accepted since 1910. Over recent times Clements, M.A. (1989) and Jones, D.L. (1998) – Hopper, S.D. and Brown A.P. (2001) do not recognise *C. filamentosa* as being present in Western Australia. They have elevated the previous varieties to species rank, with agreements supporting each others taxonomy.

The publication of the book “Orchids of South-West Australia” by Hoffman, N. and Brown A. (1992) and the reprint in 1998 has further ‘muddied’ the waters. They prematurely and invalidly, in my opinion, published a series of manuscript names that were inferred as being published in Orchid Research notes No 3, A.O.F. This does not seem to have happened.

Was this debacle eventually rectified with the publication of Hopper and Brown (2001) where some forty ‘species’ previously included under the *C. filamentosa* complex were given species and sub-species names?

Does this mean that they no longer exist in Western Australia?

Jones, D.L. and Clements, M.A. et-al. (2001) presented a new classification that changed generas and included Hopper’s and Brown’s ex *C. filamentosa* under the new name ‘*Calonema*” (Szlachetko 2001a) and later, because of an oversight, had to change the illegitimate genus to *Calonemorchis* (Szlachetko 2001b), where-in they accepted all of Hopper's and Brown's 'species' names. So after these tortuous and vexatious manipulations *C. filamentosa* has finally been put to rest in Western Australia.

It has been said that in nature there are no genera or species, only populations; not withstanding this *C. filamentosa* (defunct in WA) will continue to perpetuate the species as they have done for time immemorial. In season they show their beauty in great bounty and almost infinite variety throughout their former range even in Western Australia. Whilst taxonomists continually find new ways of naming them, these orchids grow on obliviously.

THE PHOTOGRAPHS.

As previously stated, the photographs with the exception of a few from Jerramungup have all come from near Cranbrook. The multiple photographs come from one highly localised area and they depict some of the variation that is present and support the thrust of the paper.

Plate 1 West of Cranbrook.

Plate 2 East of Cranbrook.

Plate 3 West of Cranbrook on the Boyup Brook road.

Plate 4 Cranbrook townsite.

Plate 5 Tenterten – *C. filamentosa* var. *caesarea*, variants.

Plate 6 East of Cranbrook from Wansborough.

Plate 7 Jerramungup – *C. filamentosa* var *filifera* colour variants.

Plate 8 Close up to show labellum, calli striping, etc.

References:

GEORGE, ALEX (1972); Checklist of Orchidaceae of W.A., "Nuytsia" Bulletin of the Western Australian Herbarium.

CLEMENTS, MARK (1998); Catalogue of Australian Orchids, Australian Orchid Research No 1 A.O.F.

HOFFMAN, NOEL and BROWN, ANDREW (1992 and 1998); Orchids of South West Australia.

HOPPER, STEPHEN and BROWN, ANDREW (2001); Spider, Fairy and Dragon Orchids, Nuytsia", Volume 14 No. 1-2, Western Australian Herbarium.

CLEMENTS, MARK and JONES, DAVID (2001); A New Classification of *Caladenia* R.Br. (Orchidaceae), The Orchadian, Vol. 13 No 9.

JONES, DAVID and CLEMENTS, MARK (2002); Nomenclature Notes Arising from Studies in the Tribe Diurideae (Orchidaceae): *Calonemorchis*, The Orchadian Vol 14 No1.

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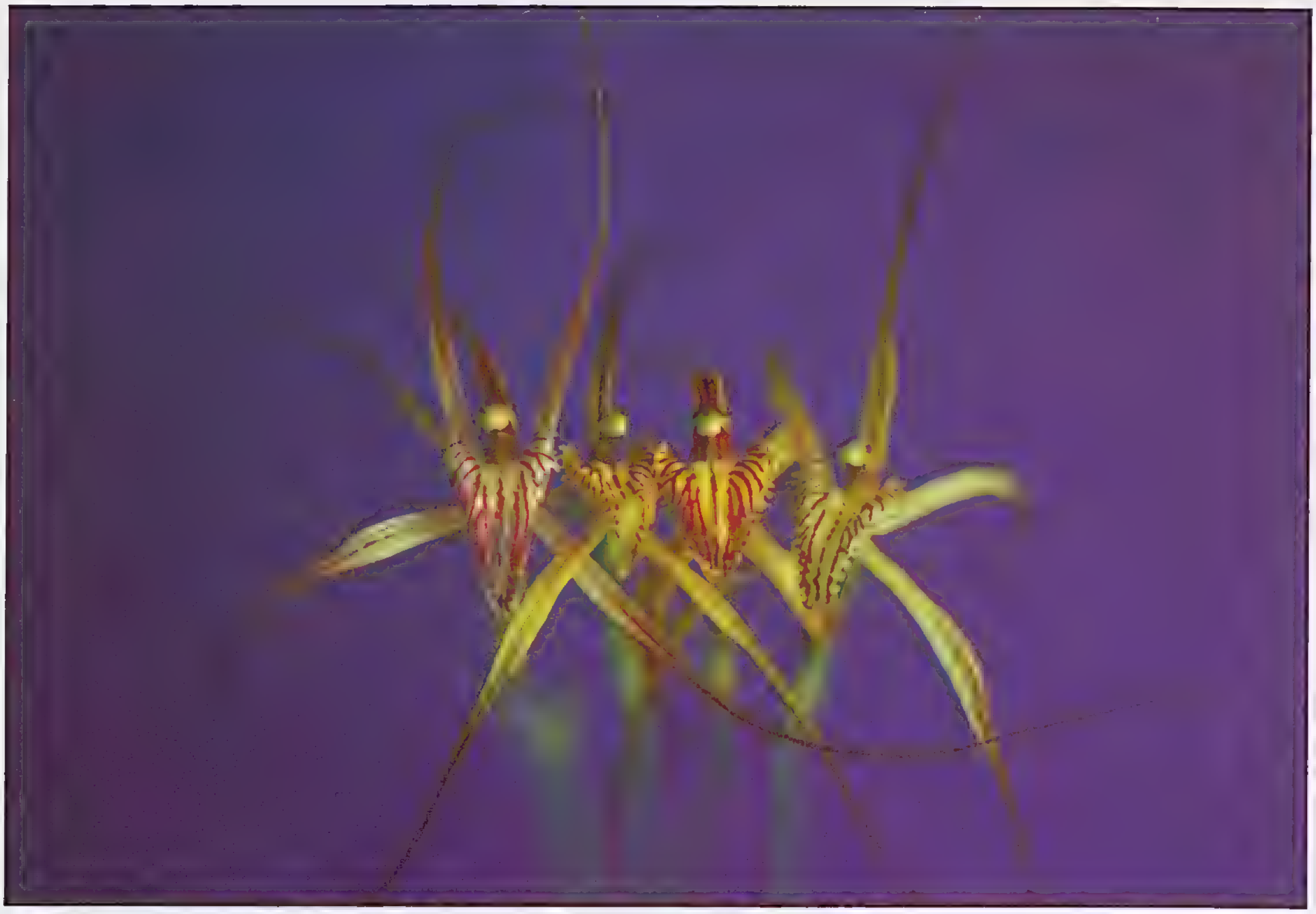

Plate 5 Tenterten - *C. filamentosa* var. *caesarea*, variants

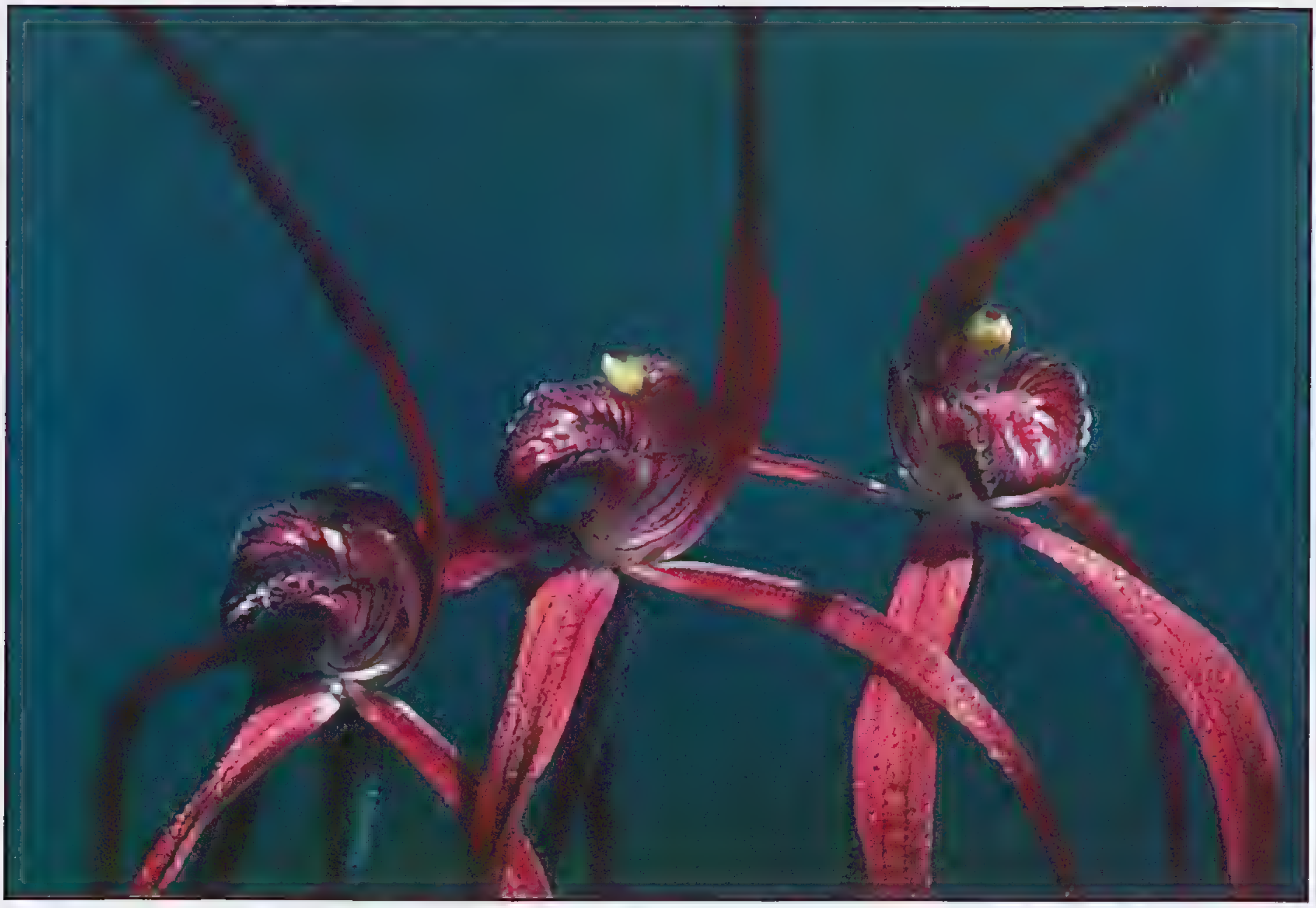

Plate 6 East of Cranbrook from Wansborough

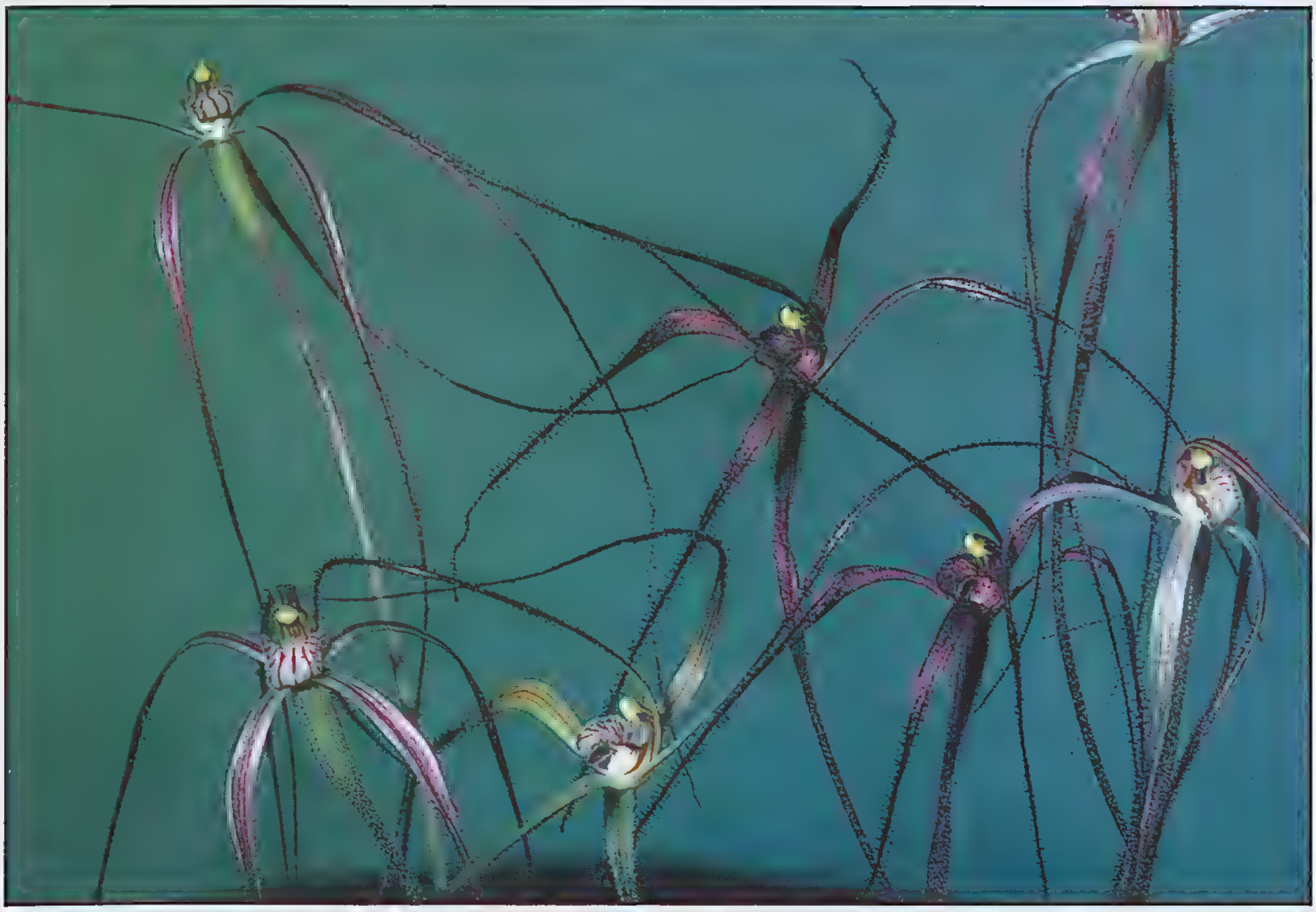

Plate 7 Jerramungup - *C. filamentosa* var. *filifera* colour variants

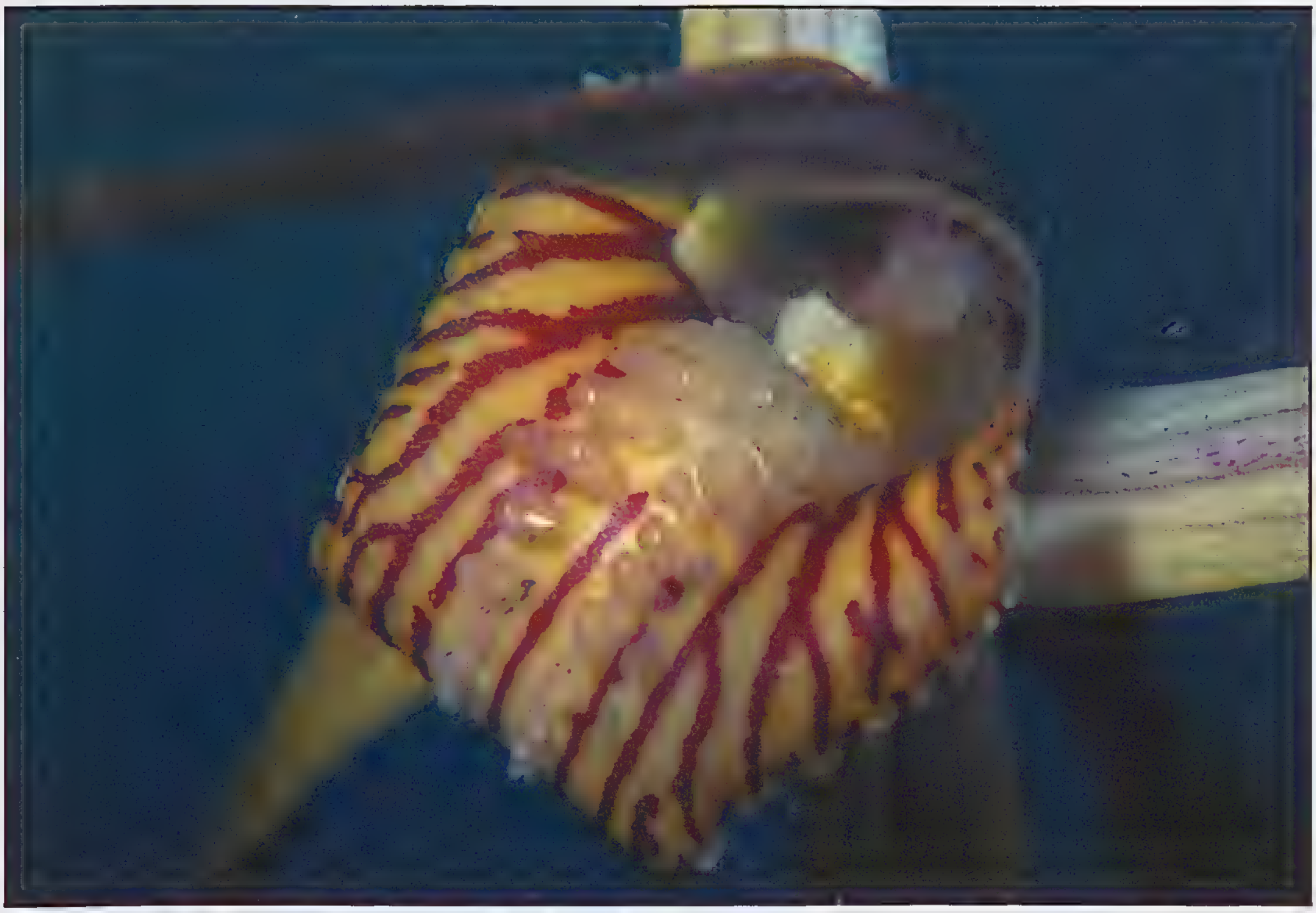

Plate 8 Close up to show labellum, calli striping, etc.

Photos R.L. Heberle

Letters to the Editor.

Dear Peter,

I am writing in response to an article in the Orchadian. I would be pleased if you could publish response,

Cheers
Allan Standering

To Whom It May Concern

I am writing in response to your article "Amazing Treefern Pots" The Orchadian, Vol 14, No. 1. As someone who grows treeferns from spore to discourage harvesting of larger ferns I am writing to point out the effects of creating greater demand for treefern material.

These pots or slabs are made from treefern bases or root systems, the trunk of the plant being too unstable for orchid establishment. To get a treefern with a root ball large enough to carve out slabs or pots economically would require fifty years of growth (minimum) in Victorian/South Gippsland conditions. I could only guess at the age of some of the treeferns that many larger pots or slabs have been carved out of as local conditions would vary growth habits and rates. However between fifty and one hundred years for smaller pieces would not be far out. Finding an older treefern a hundred years plus, would be more economical and preferable as more pieces could be produced from the one root ball.

When harvested not only are valuable remnant ecosystems depleted, but the filtering process they do so efficiently is also depleted impacting on water quality. As these plants also dominate the filter layer of any forest ecosystem, nature's effectiveness at filtering water as well as contributing to greater biodiversity is negatively affected.

The system we have of allowing the harvesting of treeferns from native forests is a hangover from days when our forests seemed inexhaustible. This market in treefern, under licence or not does have a detrimental effect on our environment. As orchid growers we should be more proactive in nurturing, in ourselves and those around us, a greater "conservation, where possible" attitude. Promoting these products encourages the incremental loss of our natural heritage.

Allan,

I share your concern about the destruction of tree ferns and the habitat in which they grow. I would like to think that the members who read The Orchadian, would not purposely go into the bush and destroy it for the sake of getting some tree fern pots. Rather, I would like to think that this would possibly give them the idea and opportunity to make use of a dead tree fern in the back yard. Tree fern has long been used as an orchid host and this will probably continue. I understand, that the material used in making these pots and slabs is the left over root system of tree ferns harvested in Tasmania for the landscape and nursery trade.

I thank Allan for his letter and his concern, the letter is constructive and informative.

Peter, Editor.

-oOo-

Dear Peter;

On behalf of the members of ANOS - Newcastle Group I would like to express the enjoyment that you have given in the production of the last three issues of the Orchadian. The Orchadian is now a well balanced information journal of articles, photograghs and scientific data suitable for the young and aspiring orchid grower as well the more experienced grower.

So keen is the interest shown by current subscribers of the Orchadian at our meetings that I have been asked by a number of members who currently do not subscribe if you could send at least a dozen or so subscription forms, or one and I will photocopy it, or send a copy by email.

On behalf of our members Peter, CONGRATULATIONS on a job well done and keep up the good work as editor of the, The Orchadian.

Kind regards
Peter Denning
Secretary ANOS - Newcastle Group

I receive several emails and letters like this with each issue, I do appreciate them all. Thank you to Peter Denning and the members of Newcastle Group.

-oOo-

A.N.O.S Mid North Coast AUSTRALIAN NATIVE ORCHID SPECIES SHOW

Featuring *Dendrobium speciosum*

Dave Rideout
9 Stringybark Ave.,
Wauchope NSW 2446.

Last year on the 6th - 10th September, 2002 a very unusual orchid show was held at Ted and Winsome Walmsley's, Spooner's Lane property at Kempsey. It was an **Australian native species only** show with *Dendrobium speciosum* as the main feature.

Although there are many shows held throughout Australia for Australian native orchids this show was unique in that it promoted only Australian native orchid species. The Show was a great success and attracted interest from orchid growers, members of the public and visitors from as far away as Sydney, Newcastle, Queensland and Victoria. Growers were very supportive with many plants being benched in all classes. The *Dendrobium speciosum* were divided into six classes. These were four classes for varieties, one class for first flowering seedling and a *D. speciosum* intervariatal class.

Dendrobium speciosum var. *curvicaule* was the feature variety. Tony Blewitt won this class with a clone he named "Ivory Star", which was also Grand Champion. The show also had six classes for other Australian native species. There was a wide variety of genera with *Sarcanthinae*, *Dockrillia*, *Dendrobium tetragonum*, *D. kingianum* and terrestrial orchids represented; there was also a class for any other Australian species. All classes where well represented.

The Judges came from New South Wales and Queensland judging panels, thank you to the Judges for travelling to help make it a success.

After such a successful show last year another is planned for 30th, 31st August and 1st September, 2003. The show will be open from 9.00 am to 4.00 pm daily but will be closed during judging. The format will be similar with *Dendrobium speciosum* var. *speciosum* to be the feature species for this year. We will also have the same classes for other Australian native species, sales tables operating and food and drinks are available.

As growing conditions so far this year appear favourable a wide variety of orchids and enthusiasts is anticipated for this year's Show.

For further information contact

Ted Walmsley 02 65627150
or
Dave Rideout at
jeanner@midcoast.com.au

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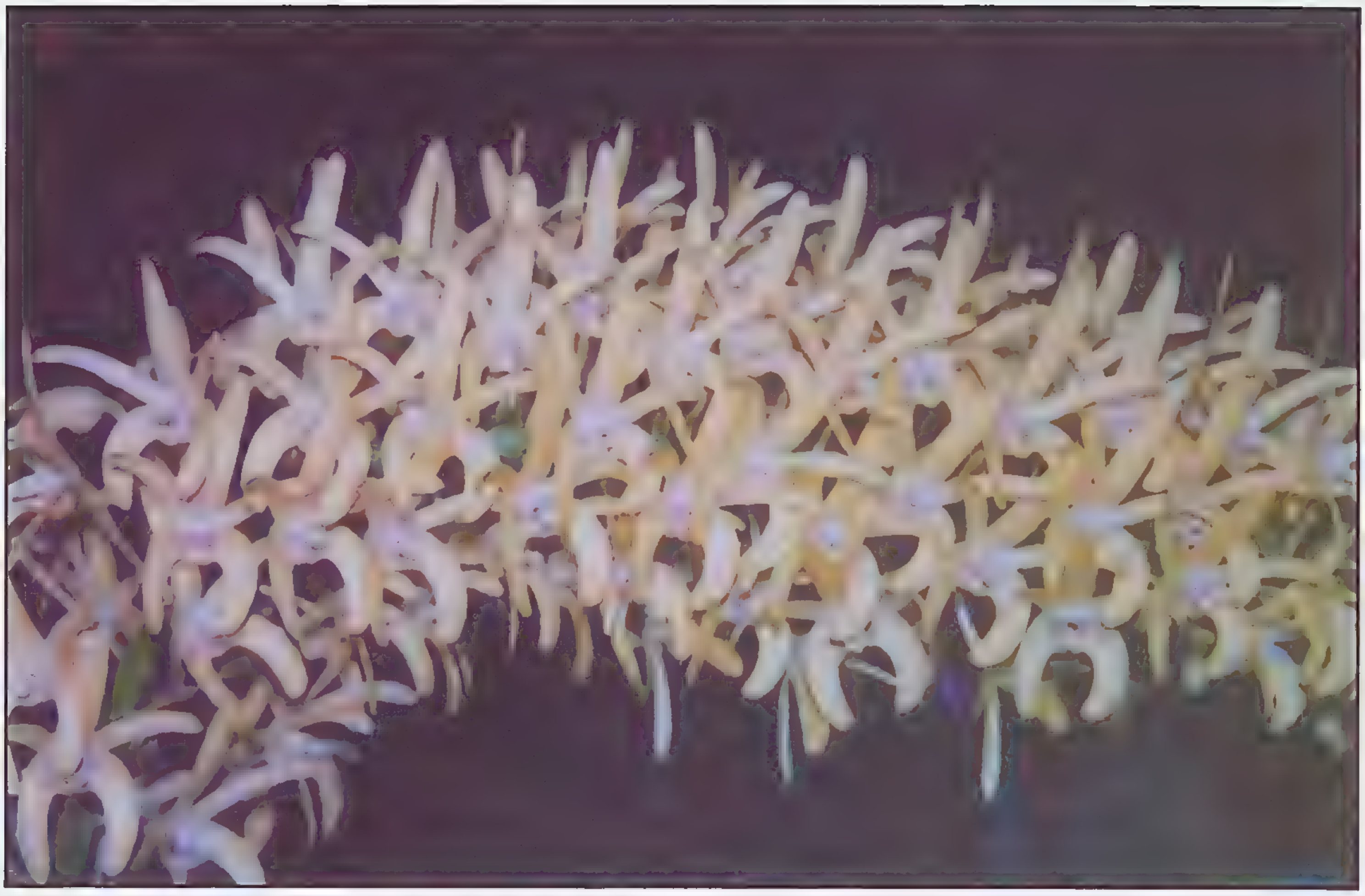
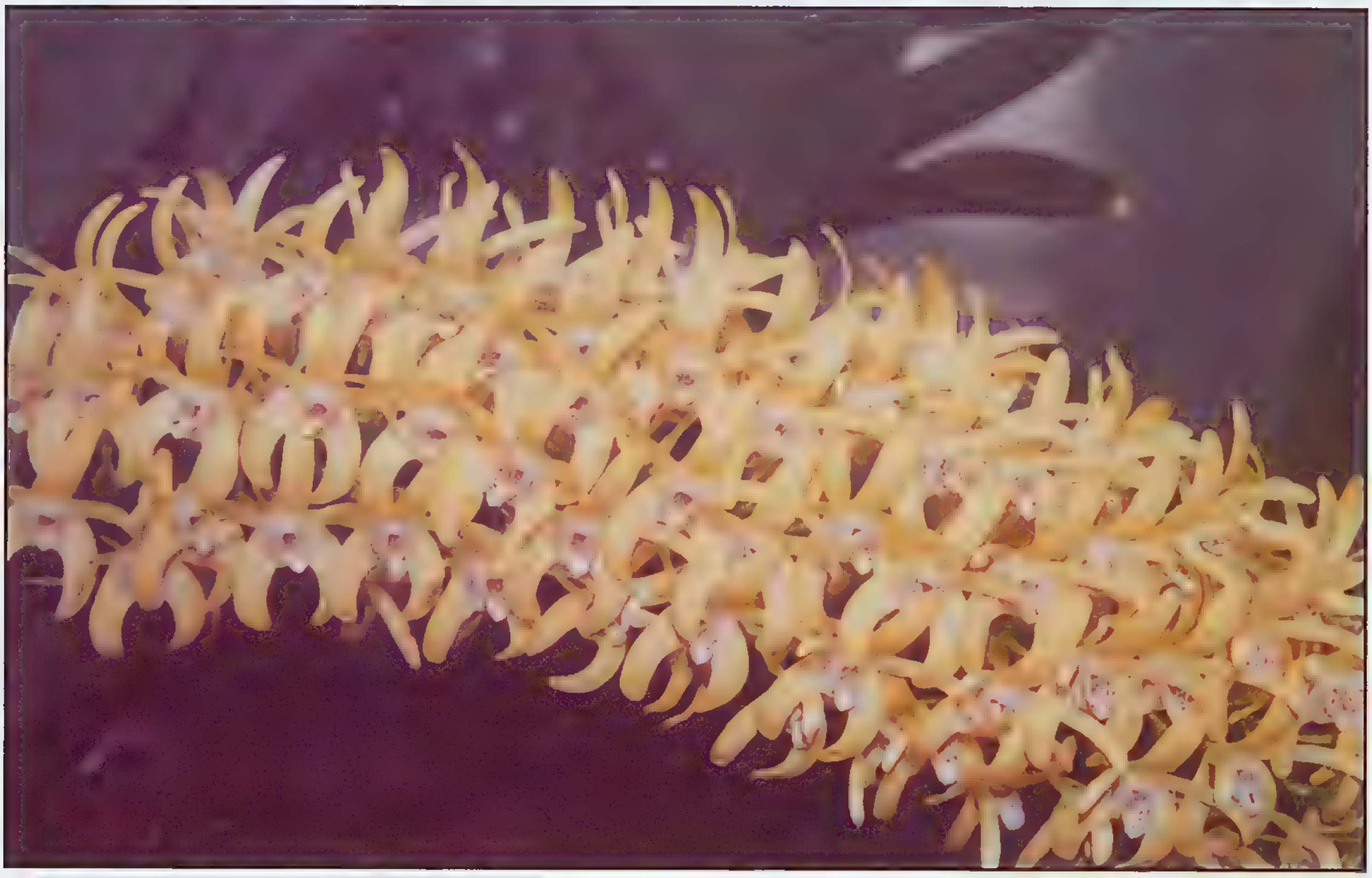
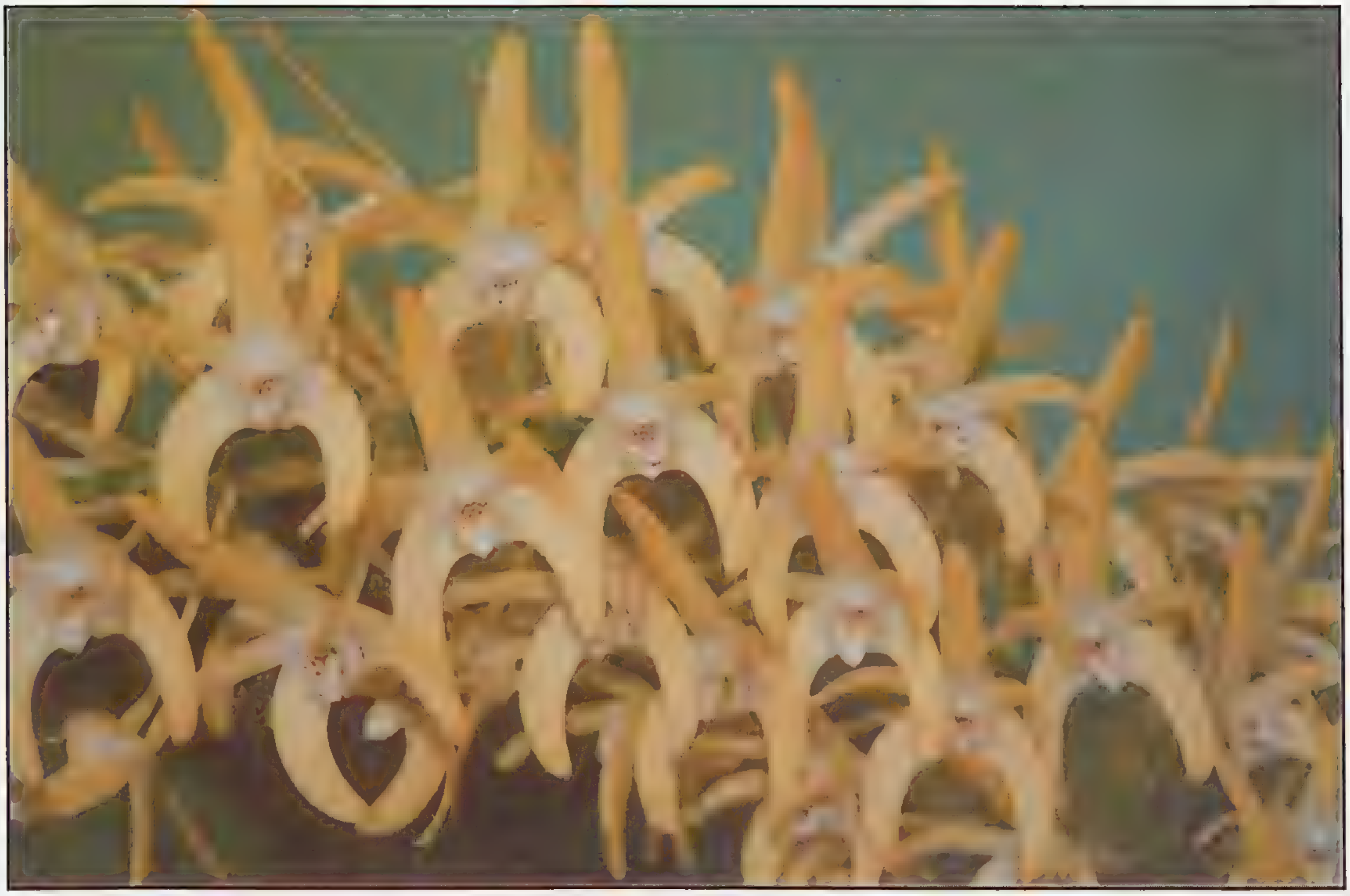


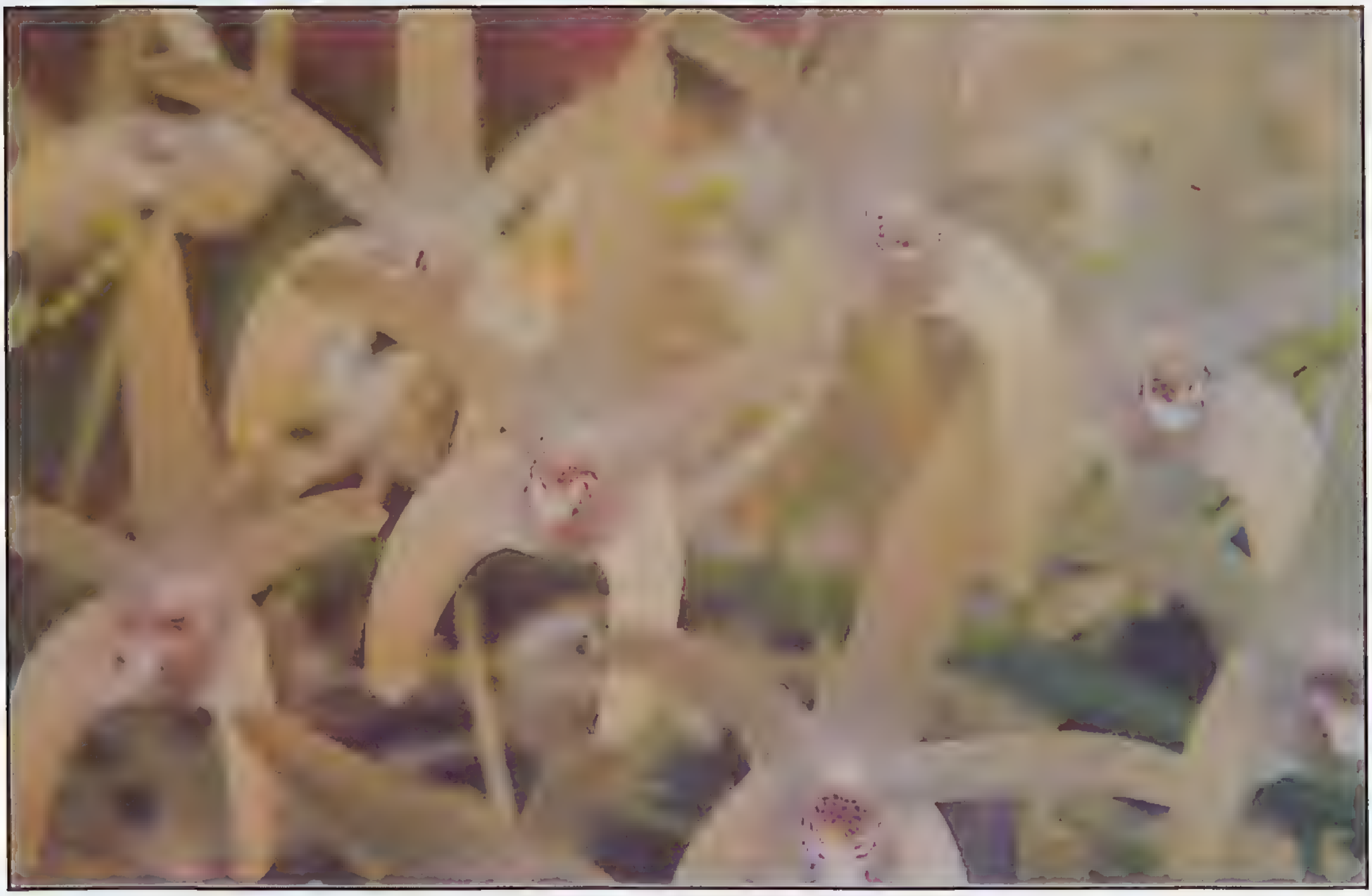
Dendrobium speciosum var. *curvicaule* 'Winsome'



Dendrobium speciosum var. *curvicaule* 'Ted'



Dendrobium speciosum var. *speciosum* 'Robust'



Dendrobium speciosum var. *curvicaule* 'Ivory Star'

New Classifications for Pterostylis.

Peter Eygelshoven
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We all have seen or heard about the renaming of the genus *Pterostylis*. Jones and Clements are not the first to do this, if you have read the AOF Australian Orchid Research Volume 4, then you would know it has been happening since the first little greenhood was found. Fortunately, the greenhoods we mostly grow are still called *Pterostylis*. These are the greenhoods we affectionately call colony types or rosette types. Robert Brown described the genus *Pterostylis* in 1810 and used *Pterostylis curta* as the type species. So the list of greenhoods that still retain the name of ***Pterostylis*** are as follows:

Pterostylis: the 'rosette group'; from the Greek words *pteron*, wing and *stylos*, pillar or pole, (column).

Pterostylis acuminata
Pterostylis agathicola
Pterostylis alpina
Pterostylis anatona
Pterostylis areolata
Pterostylis arfakensis
Pterostylis auriculata
Pterostylis australis
Pterostylis banksii
Pterostylis baptistii
Pterostylis braemii
Pterostylis bureaviana
Pterostylis cardiostigma
Pterostylis caulescens
Pterostylis cernua
Pterostylis cucullata
Pterostylis curta
Pterostylis dubia
Pterostylis erecta
Pterostylis falcata
Pterostylis foliata
Pterostylis furcata
Pterostylis graminea
Pterostylis hildae
Pterostylis hispidula
Pterostylis humilis
Pterostylis irsoniana
Pterostylis irwinii
Pterostylis micromega
Pterostylis montana
Pterostylis monitcola
Pterostylis neocaledonia
Pterostylis novoguineensis
Pterostylis nutans
Pterostylis oliveri
Pterostylis oreophila
Pterostylis paludosa
Pterostylis papuana
Pterostylis patens
Pterostylis pedunculata
Pterostylis porrecta
Pterostylis procera
Pterostylis scabrida
Pterostylis silvicultrix
Pterostylis stricta
Pterostylis venosa
Pterostylis X aenigma
Pterostylis X ingens

The greenhoods that we called the "cauline type/group" have now been named **Diplodium**. The first collection of a greenhood orchid that is in a herbarium collection was by Jacques Labillardière in 1792, from Bruny Island in south-eastern Tasmania. He described the species in 1806 and named it *Disperis alata*. In 1810 Swartz described *Diplodium* and placed Labillardière's *Disperis alata* under *Diplodium* as it was incorrectly placed under *Disperis*. In 1880 Benthum and Hooker made *Diplodium* a synonym of *Pterostylis*. In 1910, *Pterostylis* was kept rather than *Diplodium* at the 3rd International Botanical Congress, in Brussels, because it was thought that both the names applied to the same genus and that there was some uncertainty about the date of publication for *Diplodium*. Jones and Clements have now reinstated the name *Diplodium*. The greenhoods which now have the name *Diplodium* applied to them are:

Diplodium: the 'cauline group'; derived from the Greek word *diplous*, meaning double.

Diplodium abruptum
Diplodium aestivum
Diplodium dolichochilum
Diplodium elegans
Diplodium reflexum
Diplodium revolutum

Diplodium alatum
Diplodium alobulum
Diplodium alveatum
Diplodium angustum
Diplodium aquilonium
Diplodium asperum
Diplodium atrans
Diplodium brumalis
Diplodium bryophilum
Diplodium coccinum
Diplodium decurvum
Diplodium erythroconcha
Diplodium fischii
Diplodium grandiflorum
Diplodium hamiltonii
Diplodium hians
Diplodium laxum
Diplodium longicurvum
Diplodium longipetalum
Diplodium metcalfei
Diplodium obtusum
Diplodium pulchellum
Diplodium robustum
Diplodium rogersii
Diplodium russellii
Diplodium scabrum
Diplodium scoliosum
Diplodium striatum
Diplodium tenuissimum
Diplodium torquatum
Diplodium trullifolium
Diplodium truncatum

The ‘rufa/barbata groups’ have also been separated from *Pterostylis*. This was done by the Polish botanist D.L. Szlachetko in 2001, during the preparation of Jones and Clements paper and although there were errors in Szlachetko’s paper, Jones and Clements are obliged to accept and have recognised the names, *Oligochaetochilus* and *Plumatichilos*. Greenhoods under these names are:

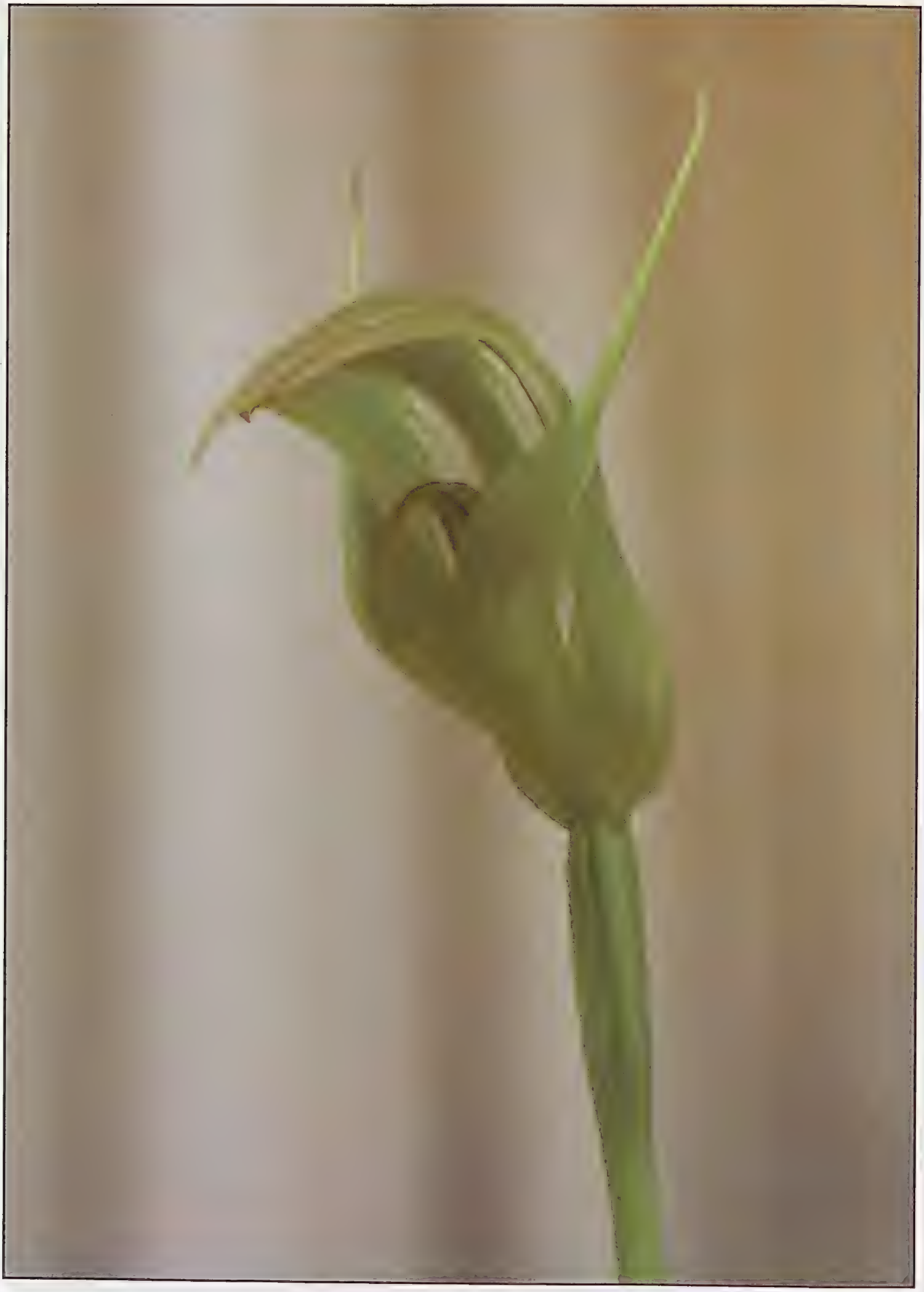
Oligochaetochilus: the ‘rufa group’; from the Greek words, *oligos*, few and *chaetos*, bristle and *cheios*, lip.

Oligochaetochilus aciculiformis
Oligochaetochilus arenicola
Oligochaetochilus basalticus
Oligochaetochilus bisetus
Oligochaetochilus boormanii
Oligochaetochilus calceolus
Oligochaetochilus chaetophorus
Oligochaetochilus ciliatus
Oligochaetochilus cobarensis
Oligochaetochilus communatatus
Oligochaetochilus despectans
Oligochaetochilus excelsus
Oligochaetochilus gibbosus
Oligochaetochilus hamatus
Oligochaetochilus insectifer
Oligochaetochilus leptochilus
Oligochaetochilus linguus
Oligochaetochilus macrocalymmus
Oligochaetochilus maximus
Oligochaetochilus mitchellii
Oligochaetochilus ovatus
Oligochaetochilus petrosus
Oligochaetochilus pictus
Oligochaetochilus planulatus
Oligochaetochilus praetermissus
Oligochaetochilus pusillus
Oligochaetochilus roensis
Oligochaetochilus rufus
Oligochaetochilus saxicola
Oligochaetochilus setifer
Oligochaetochilus spathulatus
Oligochaetochilus squamatus
Oligochaetochilus validus
Oligochaetochilus woollsii
Oligochaetochilus xerophilus

Plumatichilos: the ‘barbata group’; from the Latin, *plumati*, feathered and *cheilos*, lip.

Plumatichilos barbatum
Plumatichilos plumosum
Plumatichilos tasmanicum
Plumatichilos turfosum

Jones and Clements have split the rest of the greenhoods up using the morphology of the plant and flower, and the orchids biology, which I understand, and plenty of scientific studies of molecular and DNA analysis, which I won’t bore you with as I just don’t understand it all myself! These break down as follows:



Pterostylis acuminata

Photo Bill Dobson

Bunochilus: the 'longifolia group'; from the Greek words *bounos*, mound, knob and *cheilos*, lip. Refers to the mounded knob-like swelling at the base of the labellum.

Bunochilus chlorogrammus
Bunochilus longifolius
Bunochilus melagrammus
Bunochilus smaragdynus
Bunochilus stenochilus
Bunochilus tunstallii
Bunochilus williamsonii

Hymenochilus: the 'mutica group'; from the Greek words hymen, membrane and cheilos, lip. Refers to the very thin-textured, membranous labellum of these orchids.

Hymenochilus bicolour
Hymenochilus cycnocephalus
Hymenochilus muticus
Hymenochilus pratensis
Hymenochilus rubenachii
Hymenochilus tanypodus
Hymenochilus tristis
Hymenochilus wapstrarum
Hymenochilus ziegeleri

Taurantha: the 'ophioglossa group"; from the Latin word *taurus*, bull and the Greek word *Orchis*, another genus of orchid, the flower shape reminiscent of a bulls head.

Taurantha collina
Taurantha concinna
Taurantha X conoglossa
Taurantha ophioglossa
Taurantha splendens
Taurantha taurus
Taurantha tenuicauda

Speculantha: the 'parviflora group'; from the Latin word speculum, mirror and the Greek word anthos, flower. Refers to the flowers facing inwards towards the scape.

Speculantha aphylla
Speculantha atriola
Speculantha nigricans
Speculantha parviflora
Speculantha uliginosa

Linguella: the "nana group"; from the Latin *lingua*, tongue and the diminutive suffix *ella.*

Linguella clavigera
Linguella dilatata
Linguella nana
Linguella puberula
Linguella pyramidalis

Urochilus: the 'vittata type'; from the Greek words *oura*, tail and *cheilos*, lip. Refers to the small tail-like growth at the base of the labellum.

Urochilus concavus
Urochilus sanguineus
Urochilus vittatus

Crangonorchis: the 'pedoglossa type'; from the Geek words *krangon*, shrimp and *Orchis,* another genus of orchid.

Crangonorchis depauperata
Crangonorchis pedoglossa

The following species are all monotypic and have their own genus.

Eremorchis allantoidea; *Eremorchis,* from the Greek words *eremos*, solitary,lonely and *Orchis*, another genus of orchid.

Petrorchis bicornis; *Petrorchis*, from the Greek words *petros*, rock and *Orchis*, another genus of orchid. This species grows on rock ledges.

Pharochilum daintreana; *Pharochilus*, from the Greek words *pharos*, cloak or mantle and *cheilos*, lip.

Ranorchis sargentii; *Ranorchis*, from the Latin word *rana*, frog and the Greek word *Orchis*, another genus of orchid.

Stamnorchis recurve; *Stamnorchis*, from the Greek words *stamnos*, earthen jar or bottle and *Orchis*, another genus of orchid.

Natural hybrid between *Tauranthа* x *Diplodium* is:
X *Taurodium*
X *Taurodium furcillatum* X *Taurodium toveyanum*

-oOo-

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Nomenclatural Notes Arising from Studies into the Tribe Diurideae (Orchidaceae): *Jonesiopsis*

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Abstract

Jonesiopsis D.L.Szlachetko is acknowledged as a substitute name for *Calonema* D.L.Szlachetko, which is a later homonym for *Calonema* Morgan (1893), and *Calonemorchis* D.L.Szlachetko. Two new subgenera are recognised - subgenus *Phlebochilus* (Benth.) D.L.Jones & M.A.Clem. and subgenus *Calonema* (Lindl.) D.L.Jones & M.A.Clem. All necessary nomenclatural transfers are made.

Introduction

Szlachetko (2001) erected the genus *Jonesiopsis* which we considered to be illegitimate since the name *Jonesyella* was published simultaneously as the type of *Jonesiopsis* (Jones *et al* 2001). Kew however has interpreted the situation very differently maintaining *Jonesiopsis* to be legally published because Szlachetko intended *Jonesyella multiclavia* to be the type of *Jonesiopsis*, thus interpreting *Jonesyella* as an orthographic error (Katherine Challis pers. comm.). Therefore if *Jonesiopsis* is to be used the following new combinations are required to transfer species from *Caladenia* to *Jonesiopsis*.

TAXONOMY

SUBTRIBE: Caladeniinae Pfitzer

Jonesiopsis* D.LSzlachetko**, *Polish Bot. J.* **46(1): 14 (28 Feb. 2001). Type species:** *Caladenia multiclavia* **Rchb.f. (Jonesiopsis* **[***Jonesyella***]** *multiclavia* **(Rchb.f.)** D.L.Szlachetko).

subgenus *Jonesiopsis*
Jonesiopsis multiclavia (Rchb.f.) D.LSzlachetko, *Polish Bot. J.* 46(1): 14 (28 Feb. 2001) (as '*Jonesyella multiclavia*').

Notes: A monotypic subgenus recognised by the sepals with short apical osmophores, the basal labellum calli partially to fully united and the heads of the main labellum calli adorned with elongate papillae.

subgenus *Phlebochilus* (Benth.) D.L.Jones et M.A.Clem., ***subgen. et stat nov***. Basionym: *Caladenia* R.Br. sect. *Phlebochilus* Benth., *Fl. Austral.* 6: 377 (1873). Type species: *Caladenia cairnsiana* F.Muell., *fide* Hopper & Brown (2000). *Phlebochilus* (Benth.) D.L.Szlachetko, *Polish Bot. J.* 46(1): 14 (May 2001), *pro parte*, *nom. illeg*.

Note: The genus was published without Szlachetko designating or referring to a type (Principle II and Art: 37.1, *Greuter et al.* 2000). Type species: *Phlebochilus roei* (Benth.) D.L.Szlachetko, *fide* Szlachetko in Senghas (Dec. 2001).

Notes: Recognised by small flowers, short tepals with or without small osmophores, erect labellum calli and the labellum apex with a short glandular extension which in some species acts as an osmophore.

New Combinations:

Jonesiopsis brevisura (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia brevisura* Hopper et A.P.Br., *Nuytsia* 14(1/2): 192-196, f. 43, 41C (2001).

Jonesiopsis cairnsiana (F.Muell.) D.L.Jones et M.A.Clem., ***comb. nov.***

Basionym: *Caladenia cairnsiana* F.Muell., *Fragm*. 7: 31 (1869).

Jonesiopsis cristata (R.S.Rogers) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Caladenia cristata* R.S.Rogers, *Trans. & Proc. Roy. Soc. South Australia* 47: 337 (1923).

Jonesiopsis doutchiae (O.Sarg.) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Caladenia doutchiae* O.Sarg., *J. Bot*. 59: 175 (1921).

Jonesiopsis incrassata (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia incrassata* Hopper et A.P.Br., *Nuytsia* 14(1/2): 243-246, f. 59A-G, 57D (2001).

Jonesiopsis pachychila (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia pachychila* Hopper et A.P.Br., *Nuytsia* 14(1/2): 1257-259, f. 61N-R, 62C (2001).

Jonesiopsis roei (Benth.) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Caladenia roei* Benth., *Fl. Austral.* 6: 383 (1873).

Jonesiopsis sigmoidea (R.S.Rogers) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia sigmoidea* R.S.Rogers, *Trans. & Proc. Roy. Soc. South Australia* 62: 12 (1938).

Jonesiopsis voigtii (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia voigtii* Hopper et A.P.Br., *Nuytsia* 14(1/2): 279-280, f. 65G-L, 69C (2001).

Jonesiopsis wanosa (A.S.George) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia wanosa* A.S.George, *Nuytsia* 5(1): 57-8, t. 3, A-E (1984).

subgenus *Calonema* (Lindl.) D.L.Jones et M.A.Clem., ***subgen. et stat nov***.
Basionym: *Caladenia* R.Br. sect. *Calonema* **Lindl.** in *Edwards's Bot. Reg. 1-23: Swan Riv. Append.* **lii (1840).** Type species: *Caladenia filifera* **Lindl.,** here designated, *fide* **Jones (2001) & Jones et al. (2001).**

Calonema (Lindl.) D.L.Szlachetko, *Polish Bot. J.* 46(1): 15 (2001), *nom. illeg.*, *non* Morgan (1893). Type species: not indicated.

Calonema (Lindl.) D.L.Jones et M.A.Clem., *Orchadian* 13(9): 400-401 (2001), *nom. illeg.*, *non* (Morgan 1893). Type species: *Caladenia filifera* Lindl., *fide* Jones et al. (2001), *non* Hopper & Brown (2000).

Calonemorchis D.L.Szlachetko, *Polish Bot. J.* 46(2): 137 (Dec. 2001). Type species: *Caladenia filifera* Lindl.

Notes: Recognised by the tepals being elongated and filamentous without thickened osmophores, linear tepalline glands and prostrate labellum calli in two rows.

New combinations:

Jonesiopsis abbreviata (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia abbreviata* Hopper et A.P.Br., *Nuytsia*, 14: 187-189, f. 40, 41A (2001).

Jonesiopsis bicalliata (R.S.Rogers) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia bicalliata* R.S.Rogers, *Trans. & Proc. Roy. Soc. South Australia* 33: 17 (1909).

Jonesiopsis caesarea (Domin) D.L.Jones et M.A.Clem., ***comb. et stat. nov***. Basionym: *Caladenia filamentosa* R. Br. var. *caesarea* Domin, *J. Proc. Linn. Soc., Bot.* 41: 251 (1912).

Jonesiopsis caesarea (Domin) D.L.Jones et M.A.Clem. subsp. ***maritima*** (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia caesarea* (Domin) M.A.Clem. et Hopper subsp. *maritima* Hopper et A.P.Br., *Nuytsia* 14(1/2): 201-203, f. 44L-Q, 45A (2001).

Jonesiopsis caesarea (Domin) D.L.Jones et M.A.Clem. subsp. ***transiens*** (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia caesarea* (Domin) M.A.Clem. et Hopper subsp. *transiens* Hopper et A.P.Br., *Nuytsia* 14(1/2): 203, f. 44R-V, 45A (2001).

Jonesiopsis capillata (D.L.Jones) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia capillata* D.L.Jones, *Orchadian* 13(6): 255-256 (2000).

Jonesiopsis chapmanii (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia chapmanii* Hopper et A.P.Br., *Nuytsia* 14(1/2): 206-207, f. 46E-K, 45C (2001).

Jonesiopsis denticulata (Lindl.) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Caladenia denticulata* Lindl., in Edwards's, *Bot. Reg.* 1-23: *Swan Riv. Append.* lii (Jan. 1840).

Jonesiopsis dimidia (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia dimidia* Hopper et A.P.Br., *Nuytsia* 14(1/2): 213-215, f. 48, 47B (2001).

Jonesiopsis dorrienii (Domin) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Caladenia dorrienii* Domin, *J. Proc. Linn. Soc., Bot.* 41: 251, t. 12, f. 23 (1912).

Jonesiopsis dundasiae (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia dundasiae* Hopper et A.P.Br., *Nuytsia* 14(1/2): 219-221, f. 50, 51A (2001).

Jonesiopsis elegans (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia elegans* Hopper et A.P.Br., *Nuytsia* 14(1/2): 221-2224, f. 52, 51B (2001).

Jonesiopsis erythrochila (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia erythrochila* Hopper et A.P.Br., *Nuytsia* 14(1/2): 224-225, f. 51C (2001).

Jonesiopsis evanescens (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia evanescens* Hopper et A.P.Br., *Nuytsia* 14(1/2): 225-226, f. 49M-R, 51D (2001).

Jonesiopsis exilis (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia exilis* Hopper et A.P.Br., *Nuytsia* 14(1/2): 226-229, f. 49S-W, 53A (2001).

Jonesiopsis exilis (Hopper et A.P.Br.) D.L.Jones et M.A.Clem. subsp. ***vanleeuwenii*** (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia exilis* Hopper et A.P.Br. subsp. *vanleeuwenii* Hopper et A.P.Br., *Nuytsia* 14(1/2): 229-231, f. 54, 53A (2001).

Jonesiopsis filamentosa (R.Br.) D.L.Jones et M.A.Clem., ***comb. nov.***. Basionym: *Caladenia filamentosa* R.Br., *Prod.* 324 (1810).

Jonesiopsis filifera (Lindl.) D.L.Jones et M.A.Clem., ***comb. nov***. Basionym: *Caladenia filifera* Lindl. in *Edwards', Bot. Reg.* 1-23: *Swan Riv. Append.* lii (1840).

Jonesiopsis flaccida (D.L.Jones) D.L.Jones et M.A.Clem., ***comb. nov.***. Basionym: *Caladenia flaccida* D.L.Jones, *Austral. Orch. Res.* 2: 24-25, f.27 (1991).

Jonesiopsis footeana (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia footeana* Hopper et A.P.Br., *Nuytsia* 14(1/2): 233-234, f. 56A-H, 53C (2001).

Jonesiopsis fuscolutescens (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia fuscolutescens* Hopper et A.P.Br., *Nuytsia* 14(1/2): 234, 236-237, f. 56I-M, 53D (2001).

Jonesiopsis hiemalis (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia hiemalis* Hopper et A.P.Br., *Nuytsia* 14(1/2): 237-239, f. 56N-S, 57A (2001).

Jonesiopsis horistes (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia horistes* Hopper et A.P.Br., *Nuytsia* 14(1/2): 239-241, f. 56T-Y, 57B (2001).

Jonesiopsis incensa (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia incensa* Hopper et A.P.Br., *Nuytsia* 14(1/2): 241-243, f. 58, 57C (2001).

Jonesiopsis luteola (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia luteola* Hopper et A.P.Br., *Nuytsia* 14(1/2): 246-248, f. 59H, 60A (2001).

Jonesiopsis melanema (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia melanema* Hopper et A.P.Br., *Nuytsia* 14(1/2): 248-249, f. 59I-O, 60B (2001).

Jonesiopsis meridionalis (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia meridionalis* Hopper et A.P.Br., *Nuytsia* 14(1/2): 249-250, f. 59P-U, 60C (2001).

Jonesiopsis microchila (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia microchila* Hopper et A.P.Br., *Nuytsia* 14(1/2): 250-253, f. 61A-F, 60D (2001).

Jonesiopsis nobilis (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia nobilis* Hopper et A.P.Br., *Nuytsia* 14(1/2): 253-256, f. 61G-M, 62A (2001).

Jonesiopsis occidentalis (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia occidentalis* Hopper et A.P.Br., *Nuytsia* 14(1/2): 256-257, f. 62B (2001).

Jonesiopsis paradoxa (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia paradoxa* Hopper et A.P.Br., *Nuytsia* 14(1/2): 259-260, f. 62D (2001).

Jonesiopsis pendens (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia pendens* Hopper et A.P.Br., *Nuytsia* 14(1/2): 261-262, f. 57S-V, 63A (2001).

Jonesiopsis pendens (Hopper et A.P.Br.) D.L.Jones et M.A.Clem. subsp. ***talbotii*** (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia pendens* Hopper et A.P.Br. subsp. *talbotii* Hopper et A.P.Br., *Nuytsia* 14(1/2): 264, f. 64A-K, 63A (2001).

Jonesiopsis polychroma (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia polychroma* Hopper et A.P.Br., *Nuytsia* 14(1/2): 264-268, f. 65A-F, 63B (2001).

Jonesiopsis postea (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia postea* Hopper et A.P.Br., *Nuytsia* 14(1/2): 268-269, f. 66, 63C (2001).

Jonesiopsis pulchra (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia pulchra* Hopper et A.P.Br., *Nuytsia* 14(1/2): 269-273, f. 67, 63D (2001).

Jonesiopsis radialis (R.S.Rogers) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia radialis* R.S.Rogers, *Trans. & Proc. Roy. Soc. South Australia* 51: 296 (1927).

Jonesiopsis remota (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia remota* Hopper et A.P.Br., *Nuytsia* 14(1/2): 273-274, f. 68, 69A

(2001).

Jonesiopsis remota (Hopper et A.P.Br.) D.L.Jones et M.A.Clem. subsp. ***parva*** (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia remota* Hopper et A.P.Br. subsp. *parva* Hopper et A.P.Br., *Nuytsia* 14(1/2): 274-277, f. 69A (2001).

Jonesiopsis sanguinea (D.L.Jones) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia sanguinea* D.L.Jones, *Orchadian* 13(1): 17-21, f.7, t. (1999).

Jonesiopsis ultima (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia ultima* Hopper et A.P.Br., *Nuytsia* 14(1/2): 277-279, f. 70, 69B (2001).

Jonesiopsis vulgata (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia vulgata* Hopper et A.P.Br., *Nuytsia* 14(1/2): 280-282, f. 65M-S, 69D (2001).

Jonesiopsis xantha (Hopper et A.P.Br.) D.L.Jones et M.A.Clem., ***comb. nov.*** Basionym: *Caladenia xantha* Hopper et A.P.Br., *Nuytsia* 14(1/2): 282-283, f. 65T-W, 71A (2001).

Acknowledgements

We thank Laurie Adams for interminable discussions about aspects of the botanical code and Katherine Challis and Dick Brummit of Kew for passing on the results of their deliberations about *Jonesiopsis*.

References

Hopper, S.D. and A.P. Brown (2000). New genera, subgenera, combinations, and species in the *Caladenia* alliance (Orchidaceae: Diurideae). *Lindleyana* 15: 120-126.

Jones, D.L. (2001). Tribe Diurideae. In Pridgeon, A.M., Cribb, P.J., Chase, M.W. and F.N. Rasmussen (eds.). '*Genera Orchidacearum*' Volume 2., Oxford `University Press, Oxford.

Jones, D.L., Clements, M.A., Sharma, I.K. and Mackenzie, A.M. (2001). A new classification of *Caladenia* R.Br. (Orchidaceae). *Orchadian* 13(9): 389-420.

Greuter,W., McNeill, Barrie, F.R., Burdet, H.M., Demoulin, V., Filgueiras,T.S., Nicolson, D.H., Silva, P.C., Skog, J.E., Trehane, P.,Turland, N.J. and D.L. Hawksworth (2000). *International code of Botanical Nomenclature (Saint Louis Code)*. Koeltz Scientific Books, Königstein, Germany.

Szlachetko, D.L. (2001). Genera et Species Orchidalium. 1. *Polish J. Bot.* 46(1): 11-26.

-oOo-

Bulbophyllum schillerianum H.G. Reichb.

Michael Harrison,
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68 Howes Road, Wilberforce NSW 2756.
Email: mwharrison@ozemail.com.au

As it is presently understood, *Bulbophyllum schillerianum* has the widest distribution of any Australian species in its genus, extending from the Bulahdelah district of central eastern New South Wales, to the northern end of the wet tropics in far north Queensland. A distance of 2000 km, and from near sea level to at least 1000 m altitude. Although its vegetative form is quite variable, and may be confusing to the inexperienced eye, the floral characteristics appear to be consistent across its entire range.

As a member of section *Oxysepalum* of the genus *Bulbophyllum*, it is related to such other Australian species as *B. shepherdii*, *B. wadsworthii*, *B. gadgarrense*, etc. Members of this section are distinguished by small, often insignificant pseudobulbs; succulent, channelled, more or less cylindrical leaves; and small, often somewhat fleshy flowers carried on short pedicels, which are produced from bracts along the rhizome. Plants become pendulous with age, as they mature and the rhizomes elongate.

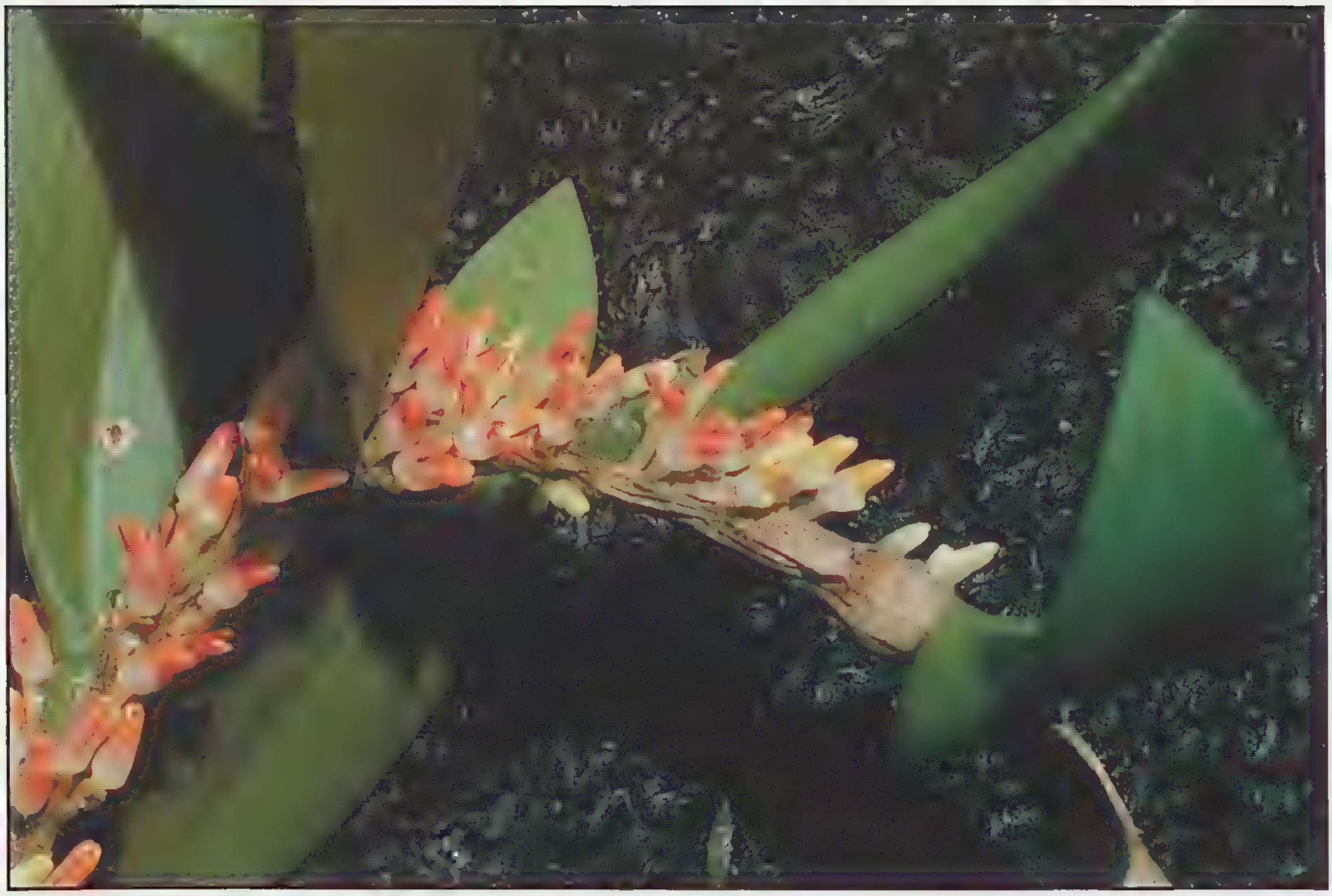
For many years this species was known as *B. aurantiacum*, a name applied by Ferdinand Mueller in 1862, but as Mark Clements has pointed out (Australian Orchid Research, Vol. 1, 1989), Heinrich Gustav Reichenbach's name of *B. schillerianum* predates that of *B. aurantiacum* by two years, and therefore has priority.

In vegetative form, *B. schillerianum* is notoriously variable, almost to the point of appearing to represent several different species. The leaves come in a variety of shapes from flat, relatively thin and almost round, to long, thick, succulent and heavily channelled. Leaf length ranges from 20 mm to 100 mm, and in width from 10 mm to 25 mm. Also, leaf colour varies from dark green, through mid green to yellowish green, seemingly regardless of light levels. The small, waxy flowers on *B. schillerianum* measure only about 4-5 mm across, and are not widely opening, but at times they are produced in such profusion that the underlying rhizome is largely obscured from view. They are white in their proximal halves, but their distal portions are orange, often strikingly bright orange, and a large plant in full bloom is a riot of colour.

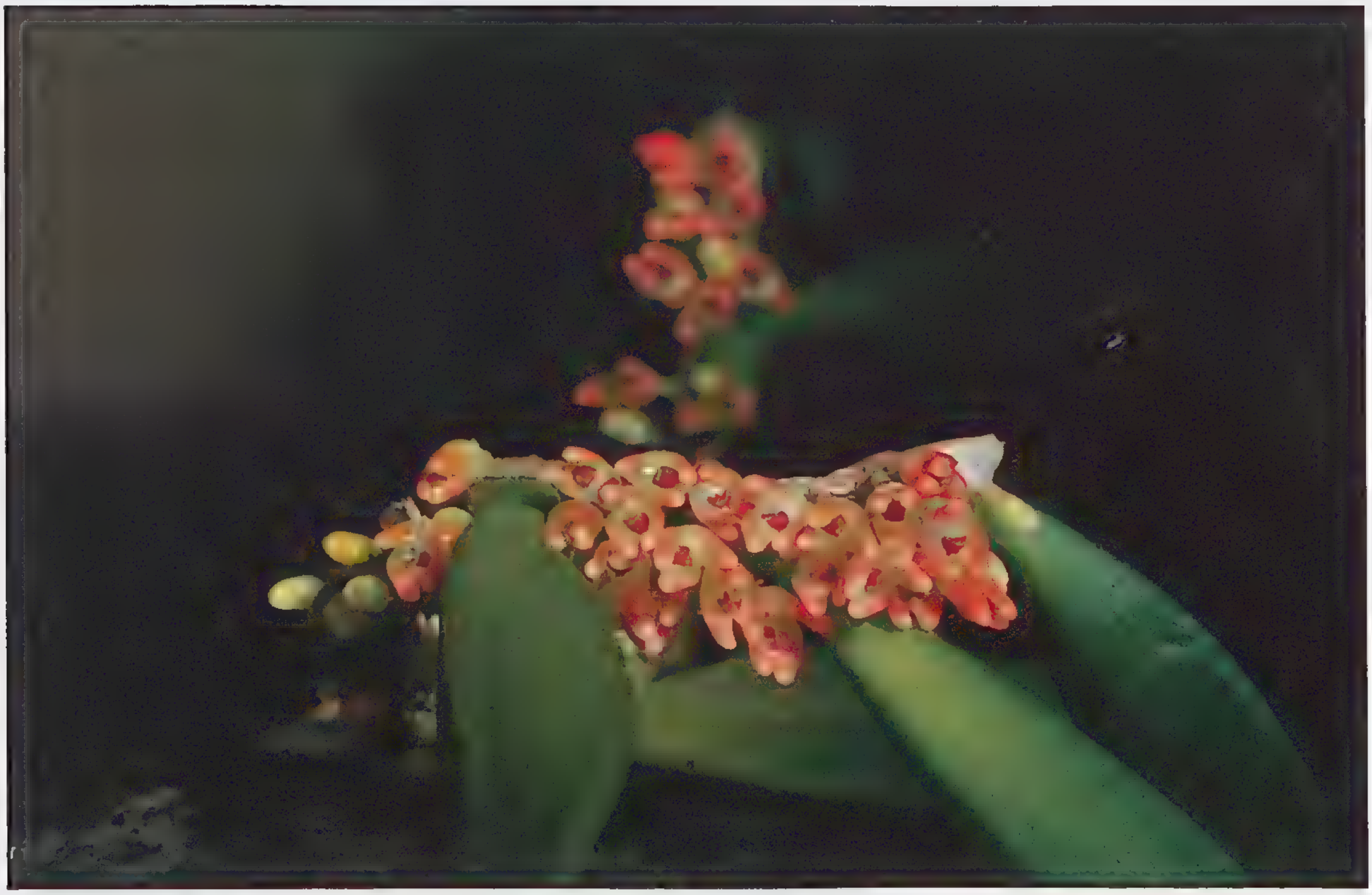
The labellum is rusty red and has fine hairs along its lateral margins, a feature not seen in the other Australian members of section *Oxysepalum*, where the labellum margins are glabrous.

B. schillerianum is essentially an epiphytic rainforest species, although in some places it may be seen in more open situations on the margins of rainforest or on rocky hillsides. Occasionally it also occurs as a lithophyte on large boulders or cliff faces in protected gorges. It grows into pendulous clumps, which may reach up to 40 cm in length in a large specimen plant. Where such a plant has shed some of its older leaves, the bare rhizomes clothed in brown, fibrous bracts, give rise to the common name of "rope orchid" for this species. It may be seen virtually anywhere on the host tree, from the main trunk to the outer limbs, although it avoids smaller twigs. At times clumps as big as a football can be seen hanging from the main lateral branches, though plants usually attain more modest proportions of just two or three rhizomes hanging down 15-20 cm In many areas of its range, *B. schillerianum* is a fairly common orchid.

In cultivation, *B. schillerianum* usually performs well. It must be grown as a slab plant, and the best long term host is a solid piece of hard treefern fibre. It needs regular watering throughout the year, more during the warmer months, at which time fertilizer at half the recommended strength should be applied weekly. Grown under double layers of shadecloth (70% + 50%) for suitable levels of light, this orchid may produce flowers at anytime of the year, but mainly during the autumn months of April and May. -oOo-



Bulbophyllum schillerianum, from the Lamington area on the Queensland and New South Wales border.



Bulbophyllum schillerianum, from the Atherton Tablelands in far north Queensland.

Horse Manure Trial Results.

Murray Harding
86 Finsbury Rd
Devon Meadows, 3977

As most people who are involved with A.N.O.S. Victorian Group are aware, Murray Harding is that person who is always extolling the virtues of horse manure. It is, in my opinion, a very effective fertiliser and, even more importantly, an excellent potting medium for orchids in its own right. My experience of this material has spanned some fifteen to twenty years, but there were advocates of horse manure around at least thirty years ago, so I can claim no rights to this idea what-so-ever. It is probably not surprising that, as the Epiphyte Study Group leader, I would suggest running a trial to establish the merits, or otherwise, of this equine excreta. The members of the group agreed to participate and we began the trial in February 2002.

A large plant of *Dendrobium* Bardo Rose was divided into many small pieces, and those participating selected a division and potted it themselves into a batch of horse manure that I had previously dried in readiness for this project. A control was provided - the remaining portion of the original plant that was repotted into bark at the same time. There were twelve plants in the "trial" as well as the control plant. Stan Hill chose a piece that he thought was about to die and commented to me that if it only survived, he would be convinced. The people participating agreed that these plants were to be added to their collection and subjected to their growing conditions without any special treatment. The only departure from their normal culture was that there was no fertiliser to be applied to these plants.

During the year that the trial ran, we had a few meetings at which the participants were asked to bring their plant along and we monitored their progress. Some had been given a great deal more water than others and those plants appeared to be existing in a medium that resembled mud. However, everyone stuck to their commitment and kept up the watering program that their other plants received.

At our last meeting (March 2003) we called for the trial plants to be brought in and we viewed the results. Two members had recently repotted their plants into bark. In one case, the horse manure had compacted to the point that there appeared, to the grower, to be too little mix left and he repotted it. Stan Hill was notably the other. Stan's plant had not only survived, but it had two new shoots that were growing strongly and producing healthy roots. All the other examples tabled were healthy and making new growth. After taking the plants out of their pots, we were able to see a significant number of vigorous new roots regardless of the degree of saturation of the mix. When compared with the control plant, every trial plant had more (and healthier) roots without the benefit of any fertiliser other than the nutrients provided by the horse manure.

Before suggesting any conclusions that might be derived from our trial, I should resort to a few factors such as pH and N.P.K characteristics of horse manure. The N.P.K data was provided by an American publication I saw some years ago, which rated them as 15 : 5 : 13. You can draw your own conclusions from that data.

For the pH levels, I sought the assistance of Bill Johnson from Glenwood Orchids. We took a number of samples and tested them as follows. First we sampled a batch of unused dried horse manure that returned the very satisfactory reading of pH 6.45. We then turned our attention to a pot full of "mix" that had been in use for 12 months and took readings from the top, centre and bottom, in that order. The results were pH 6.48 (damp), pH 5.60 (wet) and pH 5.5 (very wet). Our last test was on the contents of a pot that had been in use for three years, which returned a rating of pH 7.33.

Conclusions:

The N.P.K rating accords with the relationships suggested by some of the more successful fertiliser manufacturers. Individual preferences will always vary, so I will leave those figures to speak for themselves.

If we accept that orchids require a medium that can range between pH 5.0 and pH 7.5, then all of the readings were within that range. Obviously the middle of that spread is the ideal (pH 6.0 - pH 6.5). The newer horse manure is precisely at that point and the evidence suggests that for a period of at least two years thereafter, the mix will deliver excellent growing conditions - given that it is not allowed to get too wet. (Horse manure retains water well so, in winter, watering needs to be infrequent.)

The horse manure used in the trial had been dried completely before it was introduced into the pots. Gerald McCraith assures me that it is not necessary to do that, but I have yet to summon the courage to use it fresh. Horse manure is readily available anywhere you travel in the country - at the front gate of many farms, usually at about $2.00 for a 40 litre bag. I suggest that you avoid stable manure, particularly from racing stables (because of the presence of residue from supplements given to the horses) and stick to the product produced by a paddock full of grass.

There appears to be no bad news to tell on this topic, as all of the samples returned uniform excellent results. This is a medium that you should consider, given its low cost and the possibility that you could dispense with other costly fertilisers. Give it a try on a plant that you are prepared to lose, just to make sure that it works for you.

By the way, I am trying horse manure now as the medium into which I am deflasking seedlings. The results so far have been wonderful.

-oOo-

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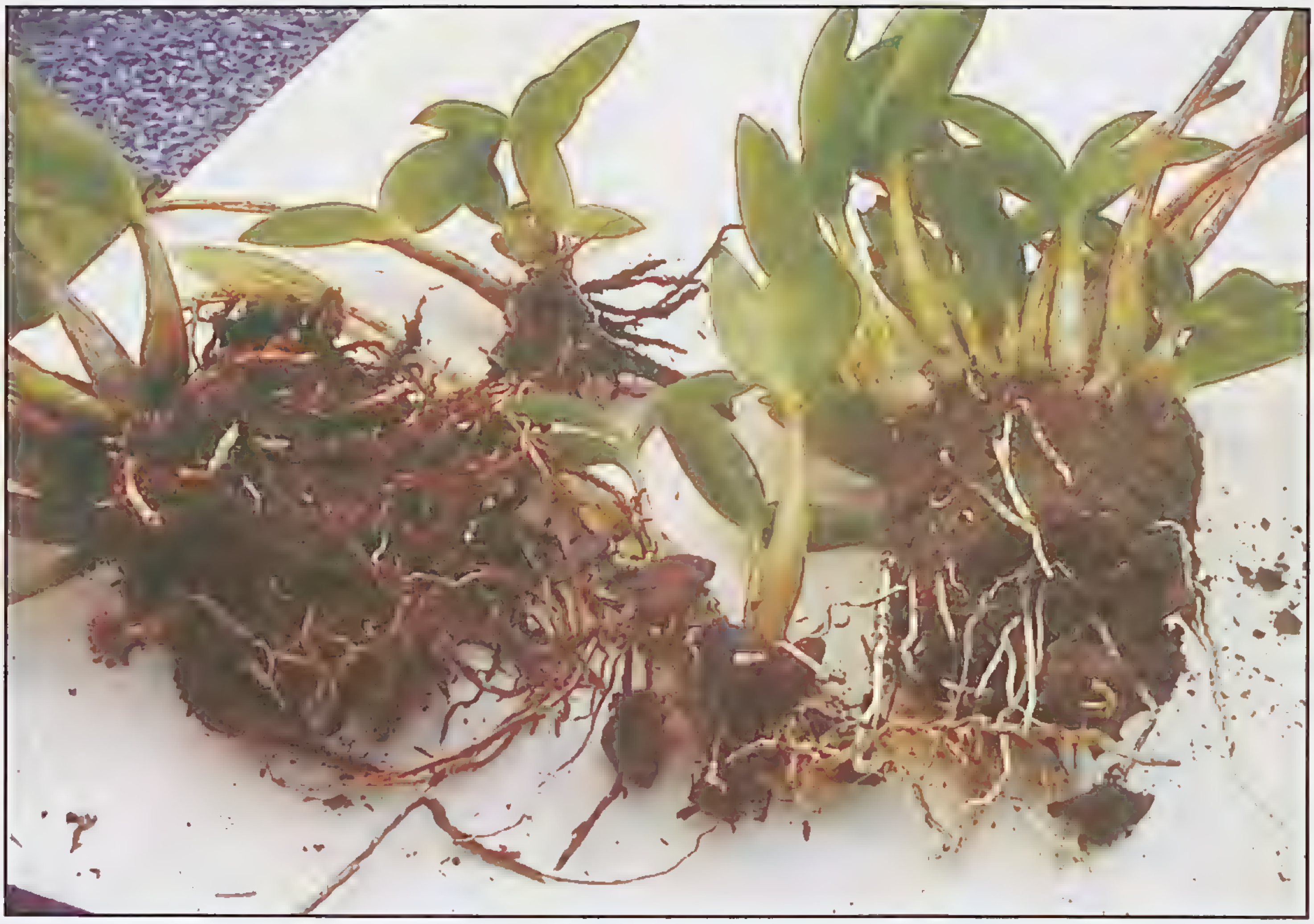
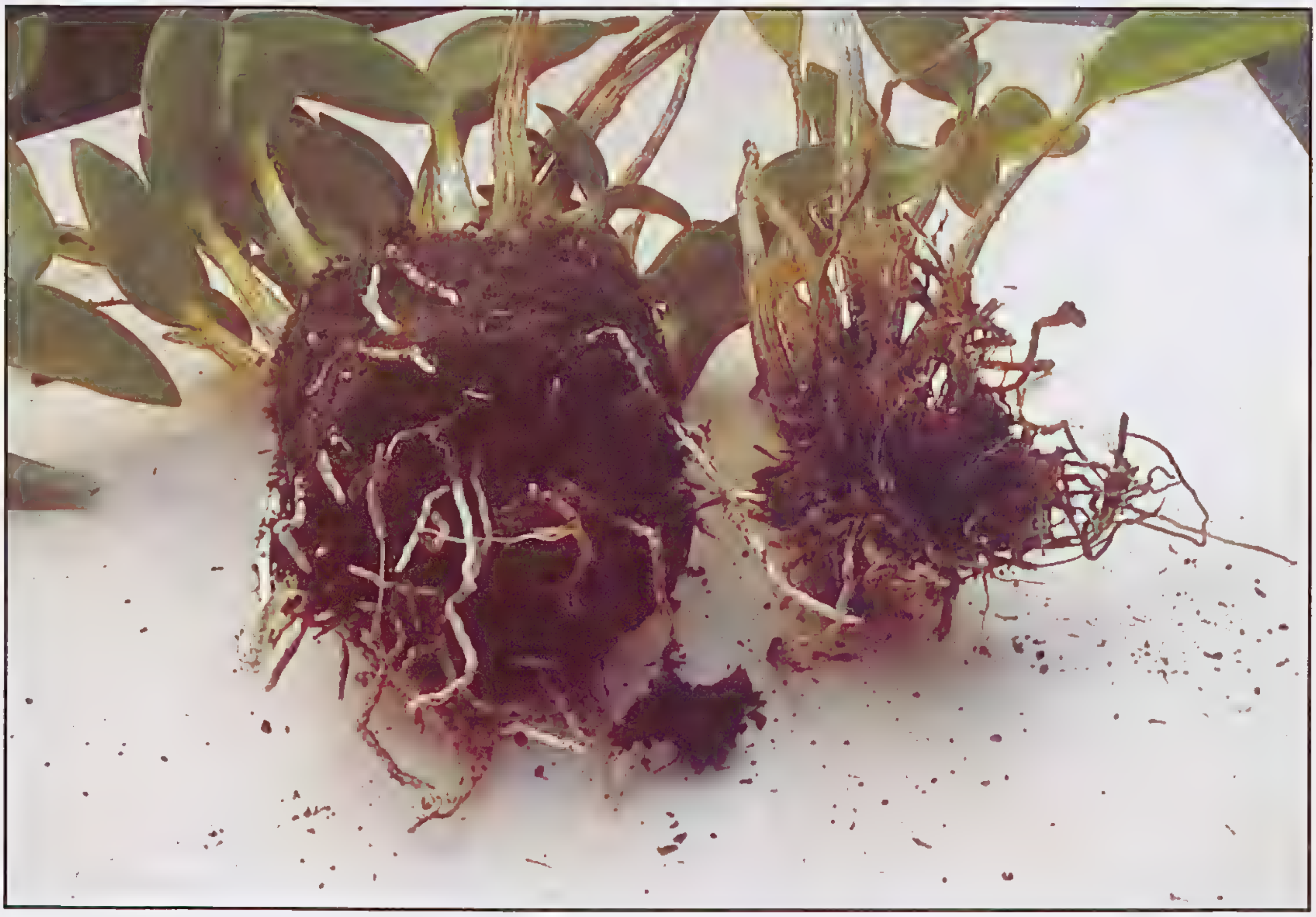
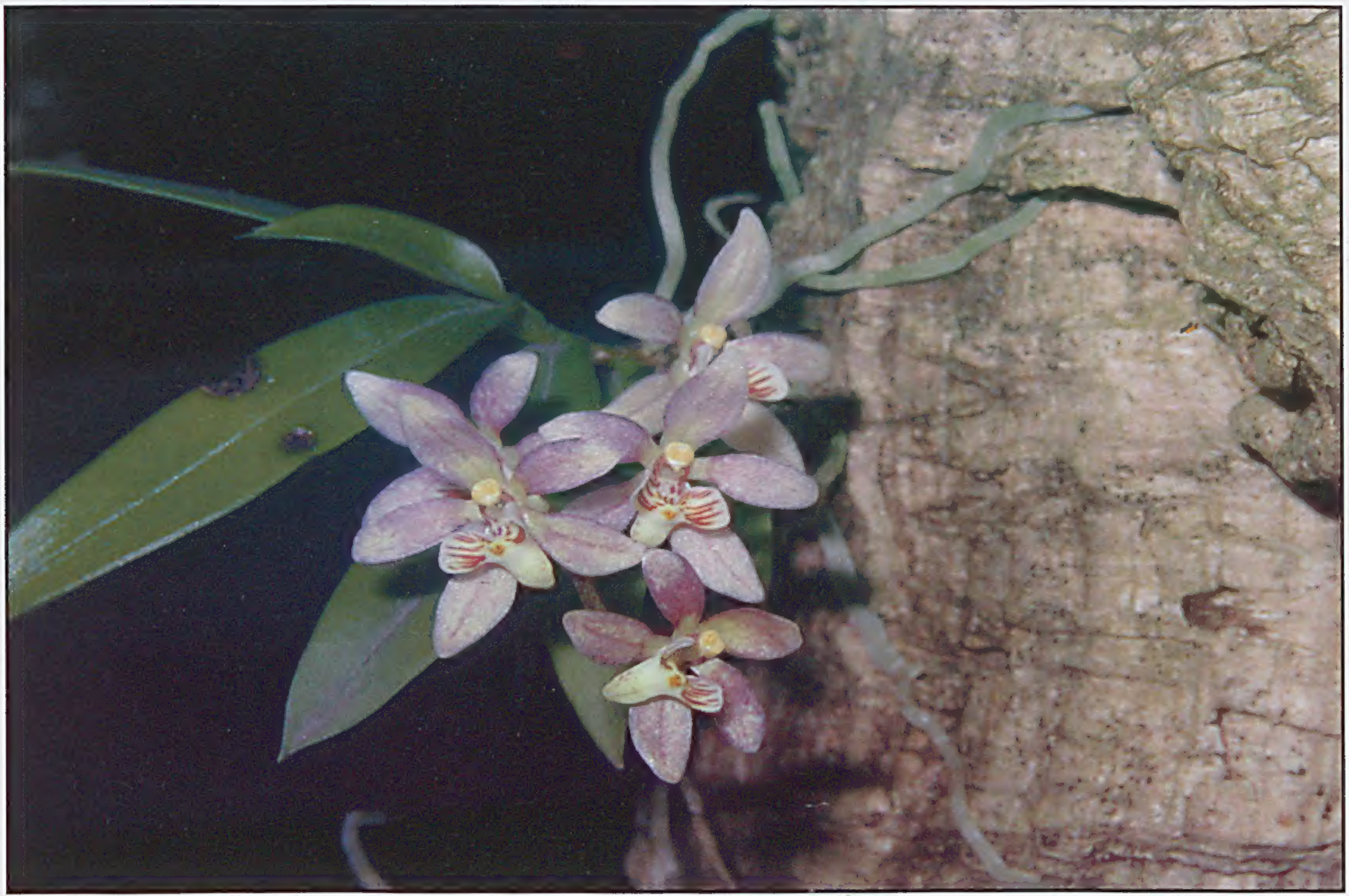


At the March Epiphyte Study Group meeting, we tipped trial plants out of their pots and inspected the roots. As you can see they were healthy.



This photograph shows one of the trial plants (left) and a small division of the control plant (right).



Plectochilus Kilgra. As I look back through the past four issues, I realize there are no articles on Sarcochilus species or hybrids and no articles on other hybrids. Can anyone help?

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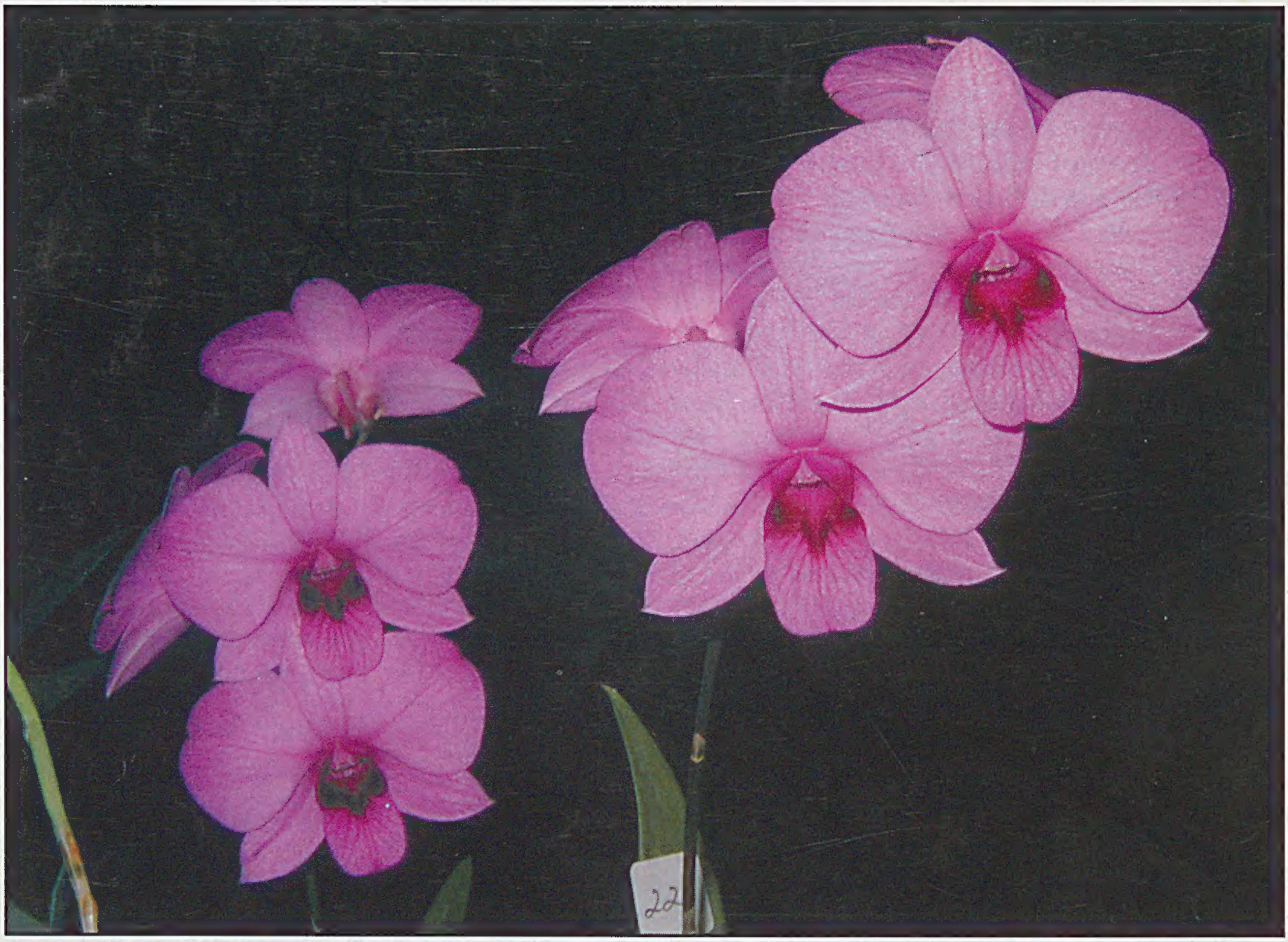
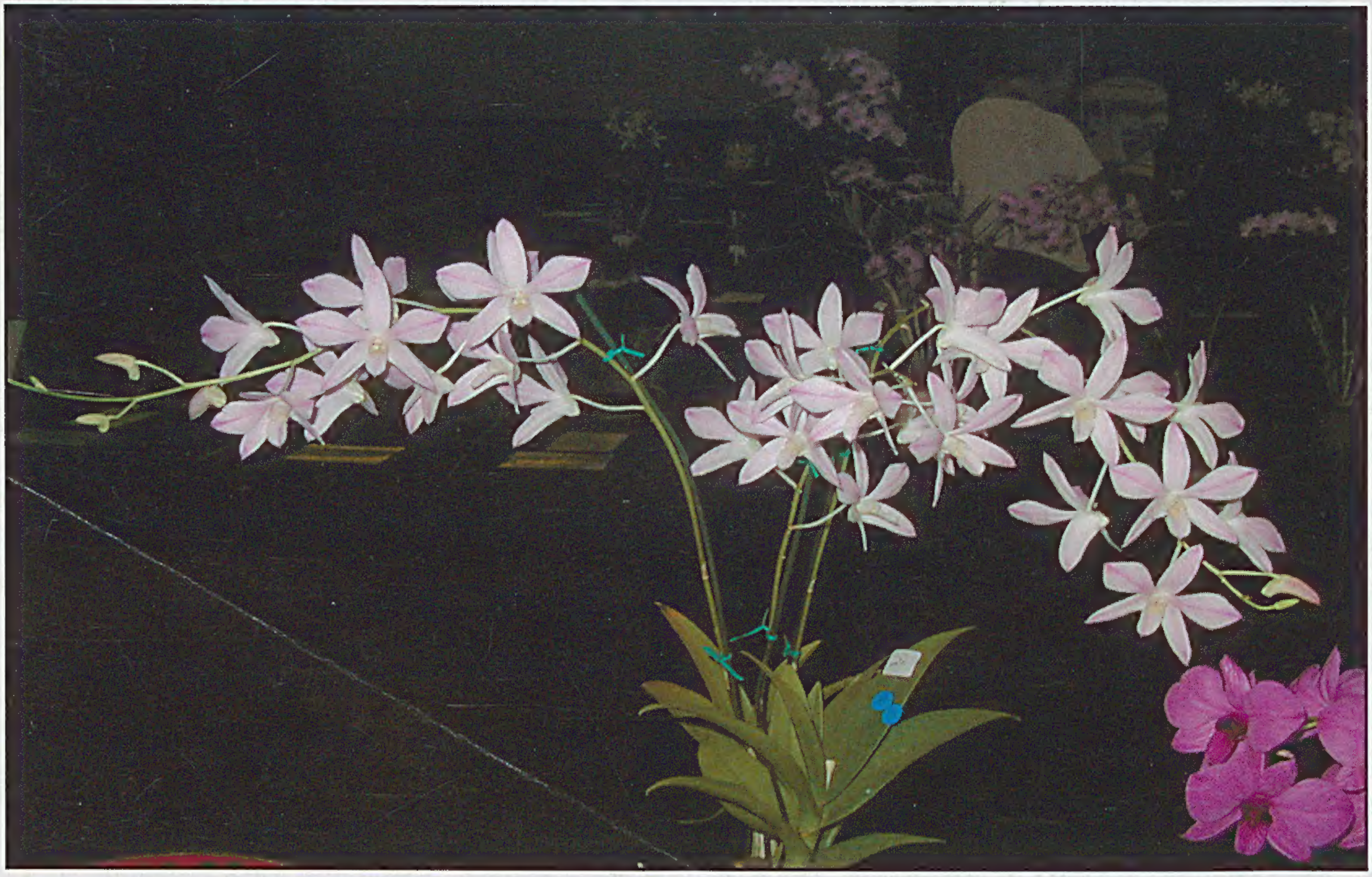


Champion *Dendrobium bigibbum* and Grand Champion of the Show, Newcastle Autumn Show, 2003.



Dendrobium Warringah. Champion Hybrid of the Show, Newcastle Autumn Show, 2003.
These two orchids grown by Don Cruickshanks. Photos Peter Eygelshoven